Concept of Operations (CONOPS)

Environmental Protection Agency
Financial System Modernization Project

Final

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Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Acceptance

This document was prepared by:

Booz Allen Hamilton
8283 Greensboro Drive
McLean, VA 22108-3838
(703) 902-5000

This document was reviewed by:

Name Date
Job Title/Role
Organization/Company
E-mail Address
Phone Number

This document was approved by:

Name Date
Job Title/Role
Organization/Company
E-mail Address
Phone Number

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Executive Summary

The Environmental Protection Agency's (EPA) Office of the Chief Financial Officer (OCFO) is overseeing the planning and acquisition phase of its Financial System Modernization Project (FSMP), a key element of the Agency's Financial Replacement System (FinRS) plan. In support of the FSMP, EPA is developing this Concept of Operations (CONOPS).

The CONOPS is a conceptual document that articulates the vision and high-level requirements for the FSMP; it is also where users describe their expectations of the new system. The objective of the CONOPS is to capture the results of the conceptual analysis process where the characteristics of the proposed system (from the user's perspective) and the operational environment in which it needs to function were identified. The CONOPS will be used as input to a software requirements specification, as part of the solicitation materials for acquiring a new system and related implementation services, and ultimately to the development of a formal, testable financial management system. The CONOPS is framed by EPA's business requirements and by the objectives set forth by the Office of Management and Budget's (OMB's) Financial Management Line of Business (FM LoB).

Because the FM LoB is a government-wide initiative for financial management improvement, EPA will ensure, through its FSMP, that it implements a financial system solution consistent with the FM LoB vision: to establish the framework for a government-wide financial management solution that is efficient and improves business performance while ensuring integrity in accountability, financial controls, and mission effectiveness. In this way, the goals identified for the FM LoB provide the underpinnings for EPA's FinRS plan:

Achieve or enhance process improvements and cost savings in the acquisition, development, implementation, and operation of financial management systems through shared services, joint procurements, consolidation, and other means

Provide for standardization of business processes and data elements

Promote seamless data exchange between and among federal agencies

- Strengthen internal controls through real-time interoperability of core financial and subsidiary systems.

The FM LoB is taking a collaborative, cross-government approach to defining the common elements that will support a market-driven model of shared services and cross servicing. EPA staff are fully engaged in FM LoB activities to ensure collaboration and alignment of EPA financial systems development work as the FM LoB is further defined.

FinRS Plan Overview

EPA's OCFO is responsible for providing financial management services and for managing and coordinating the Agency's planning, budgeting, analysis, and accountability processes. To perform these functions, the OCFO currently uses financial systems that, as they have aged, have become inflexible and costly to maintain. The FinRS plan, which proposes to evaluate the functionality of these systems and to determine a financial management solution that best fulfills the required functionality given cost, risk, integration, and efficiency considerations, encompasses all of EPA's financial business architecture functions and has been designed to meet the OCFO's Information Resources Management (IRM) strategic vision. The components of this architecture, while in varying stages of their application life cycles, collectively constitute a single, Agency-wide source of official financial information that is easily accessible by authorized customers.

FinRS will replace those systems that are inefficient and not cost effective by today's standards, promote increased integration among systems, and add new functionality. Effectively, FinRS will improve EPA's ability to perform financial management functions essential to achieving the Agency's mission. Such functions include performing Agency budget formulation and execution, overseeing accounting, managing payments and collections, compiling Agency financial statements, and producing financial accountability reports.

FinRS consists of the following components:

Financial commercial off-the-shelf (COTS) component

Administrative Data Warehouse (ADW) component

Planning component

Cost Recovery and Imaging component

Enterprise Application Integration (EAI) component

Payroll Personnel and Labor (PPL) component

- Travel component

For more information about these components, please see Section 1.2.2.

FSMP Overview

The FinRS plan will be implemented using a modular approach. The FSMP represents the implementation of several pieces of the FinRS plan as well as additional areas, including the following:

Financial COTS component, which addresses core financial management functions (i.e., Budget Execution, Cost/Project Management, General Ledger, Payment Management, and Receivable Management)

Planning component, which addresses Strategic Plan Management and Budget Formulation functions

The Operational Data Store (ODS), which is part of the overall ADW component

The Payroll Labor Distribution module of the PPL component, which addresses a subset of the Cost Management function

- Property Management, which is not a separate component of FinRS but is included in the scope of FSMP.

Figure ES-1 presents the relationship between the FinRS plan and the FSMP.

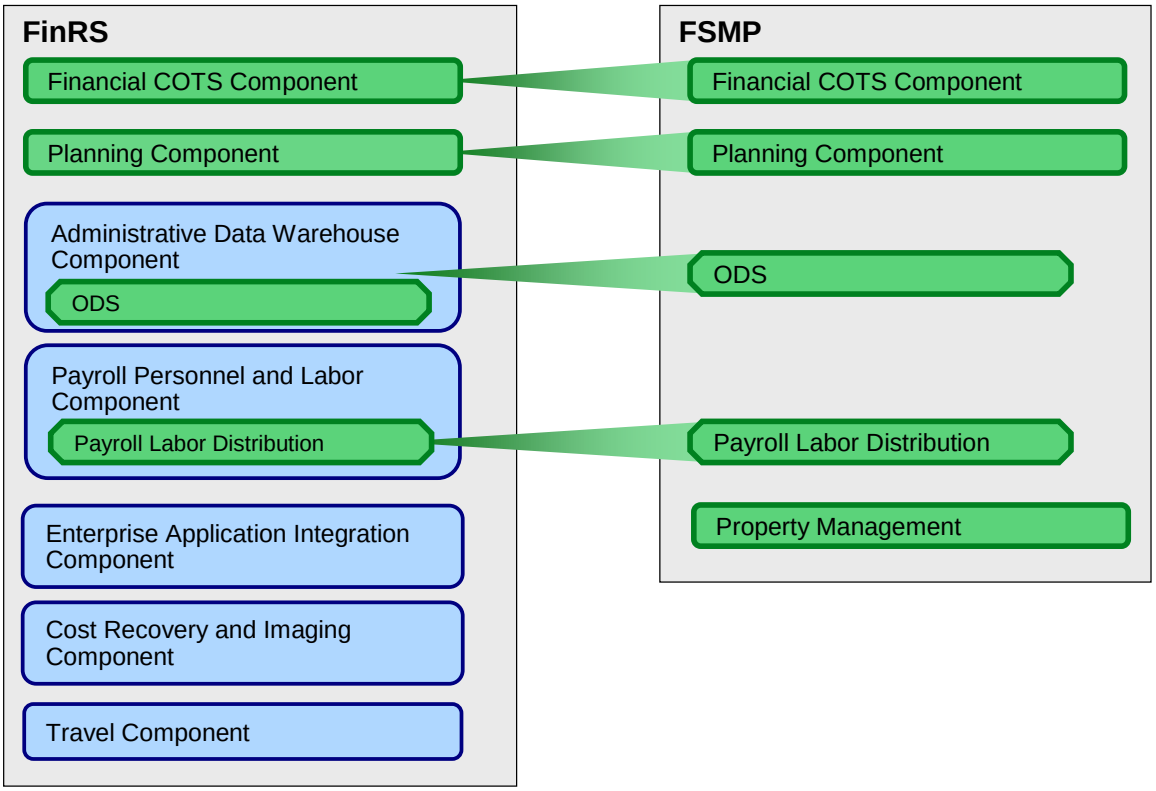

Figure ES-1. Relationship Between FinRS and FSMP

One of the primary goals of the FSMP is to evaluate the functionality of the existing systems within the scope of the FSMP and to determine a financial management solution that best fulfills the required functionality given cost, risk, integration, and efficiency considerations. This evaluation will determine whether EPA's existing functionalities and requirements could be more effectively handled by COTS financial management software or by continuing to utilize existing systems in combination with COTS software.

As-Is Environment

Understanding the work currently being performed (and how the existing legacy systems support that work) is critical to moving forward with the FSMP. This understanding offers EPA a starting point for the functionality that the envisioned system will support, defines the affected users, and describes the technical environment for the envisioned system.

The OCFO is ultimately responsible for financial management at EPA: groups within OCFO prepare the budget, report to Treasury, report to Congress, and manage EPA funds. However, a significant portion of the day-to-day accounting transactions are entered in the regions and in the various program offices. Section 2.1 provides an overview of EPA's functional processes, including how the functions are performed, and who performs them for the following areas: general ledger, strategic plan management and budget formulation, payment management, receivable management, budget execution, property management, and cost/project management. An overview of the Working Capital Fund (WCF) process, which includes activities for all of the above mentioned functions, is also provided in this section.

Target Environment

This CONOPS proposes a target environment for EPA's future financial and related systems supporting the scope of FSMP. The target environment presented in this document provides a basis for the final

environment; however, EPA recognizes that there are alternative approaches and is receptive to changes to the target environment.

The envisioned solution will, at its core, be a COTS product or suite of products. The core financial system will be Joint Financial Management Improvement Program (JFMIP)-certified to perform basic accounting functions, including the functional areas previously mentioned. The envisioned system will be intuitive and will present accounting information in simple terms to meet the functional needs of its users, some of whom may not be familiar with accounting terminology. The system will also enable EPA staff to manage workflow among OCFO business lines and between OCFO and closely related business lines (e.g., acquisitions and grants management). Furthermore, the envisioned system will support the financial service consolidation efforts underway at EPA. EPA's financial services will be consolidated into four EPA service centers by the end of FY 2006.

On a technical level, the envisioned system will make maximum use of enabling technologies, e-Government initiatives, and EPA enterprise initiatives, while at the same time improving the efficiency and effectiveness of internal financial management processes. The envisioned system will eliminate repetitive data entry, which not only streamlines the process, but also eliminates a source of data error and provides consistent data throughout EPA systems. Reducing the number of systems required for financial management will reduce the costs associated with completing the financial management mission, as well as provide for efficiency improvements.

Figure ES-2 presents EPA's administrative systems target architecture. Those systems that comprise the target architecture and environment for the FinRS plan have been designated by the component that they correspond to.

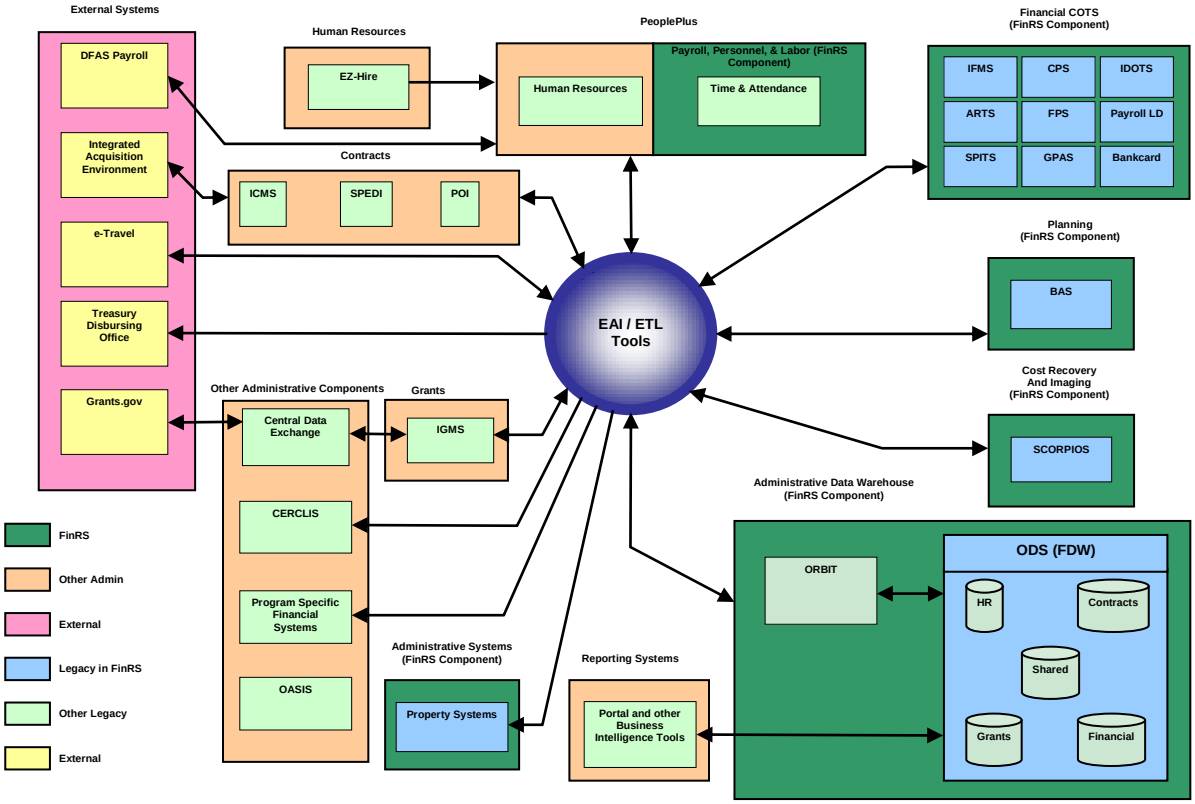

Figure ES-2. Administrative Systems Target Architecture (ASA)

The envisioned system will use EPA's standard database, operating system, and software engineering products and will comply with the technologies and standards dictated by the EPA Technical Reference Model (TRM). The new system will contribute to increased system interoperability and integration with new and legacy systems. Enabling technologies that will be used for FinRS include WebSphere's EAI, Informatica's Extract, Transform, and Load (ETL), Oracle Portal (EPA's enterprise portal tool), and the Oracle database management system. These technologies will provide for integration and expediency at the application and data layers, as well as enable an effective data warehouse solution.

At an organizational level, the overall structure for financial management within EPA is not expected to change as a result of the FSMP; however, there are efforts currently underway, such as the financial center consolidation project and OMB's FM LoB that will affect the implementation of FSMP. In the new environment, the OCFO will retain overall responsibility for financial management in EPA and the majority of the day-to-day accounting transactions will be performed by the four EPA service centers. To ensure compliance with FM LoB guidelines, it is anticipated that the envisioned system will be hosted either by another federal agency or by a commercial host.

For more information about the target environment, see Section 3, where EPA's envisioned functional and technical environments are described, including the changes expected for the performance of functions at headquarters and in the regions.

Impact Considerations

The implementation of a new financial system can have far-reaching consequences for any organization and will have a substantial impact on the financial communities across EPA. The FSMP will also impact the individuals, including program managers and executives, who use the analysis documents and reports produced by the EPA financial community to monitor and meet their business performance objectives. How the operational and organizational effects of this new financial system are managed could impact the overall success of the implementation of the new financial system.

Seven potential FSMP impact areas have been identified and include:

Funding

Process Performance Model

Individual and Organizational Roles and Responsibilities

Policy

Disposition of Legacy Systems

Acquisition

- ADW

If impacts and associated risks are not addressed, they may impede the Agency's ability to realize its performance objectives. Conversely, if they are addressed appropriately, the Agency greatly increases its chances for achieving dramatic improvements in both efficiency and effectiveness.

By identifying these potential impact areas early, the Agency is proactively positioning itself to maximize improvement opportunities while providing itself with the time required to address issues and prevent them from impeding the success of the implementation effort. EPA can also build risk mitigation for these impacts into the implementation plan for the envisioned system. For example, EPA intends to mitigate certain risks by employing a component based, phased implementation approach designed to deliver both short-term and long-term benefits.

1. Introduction

EPA's OCFO is overseeing the planning and acquisition phase of the FSMP within the FinRS plan. As part of the FSMP, EPA is developing this CONOPS, a high-level requirements document where users describe their expectations of the new system. Its objective is to capture the results of the conceptual analysis process where the characteristics of the proposed system (from the user's perspective) and the operational environment in which it needs to function were identified. The CONOPS will also be used as input to a software requirements specification, as part of the solicitation materials for acquiring a new system and related implementation services, and ultimately to the development of a formal, testable system. It is framed by EPA's business requirements as well as the objectives set forth by the OMB's FM LoB.

1.1 EPA Mission and Organization

EPA's mission is to protect human health and the environment, and since 1970, EPA has been working for a cleaner, healthier environment for the American people. EPA leads the nation's environmental science, research, education and assessment efforts. Initiatives in these efforts include the following[1]:

- **Develop and enforce regulations:** EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. EPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, EPA issues sanctions and takes other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Offer financial assistance: In recent years, between 40 and 50 percent of EPA's enacted budgets have provided direct support through grants to state environmental programs. EPA's grants to states, nonprofit organizations, and educational institutions support high-quality research that will improve the scientific basis for decisions on national environmental issues and help EPA achieve its goals. The types of programs that EPA's grants support include the following:

Research grants and graduate fellowships

Environmental education projects that enhance the public's awareness, knowledge, and skills to make informed decisions that affect environmental quality

Information for state and local governments and small businesses on financing environmental services and projects

Other financial assistance through programs such as the Drinking Water State Revolving Fund, the Clean Water State Revolving Fund, and the Brownfields program

- **Perform environmental research:** At laboratories located nationwide, the Agency works to assess environmental conditions and to identify, understand, and solve current and future environmental problems; integrate the work of scientific partners such as nations, private sector organizations, academia, and other agencies; and provide leadership in addressing emerging environmental issues and in advancing the science and technology of risk assessment and risk management.

- **Sponsor voluntary partnerships and programs:** The Agency works through its headquarters and regional offices with over 10,000 industries, businesses, nonprofit organizations, and state and local governments on over 40 voluntary pollution prevention programs and energy conservation efforts. Partners set voluntary pollution management goals; examples include conserving water and energy,

[1] *EPA web site, available at http://www.epa.gov*

minimizing greenhouse gases, slashing toxic emissions, reusing solid waste, controlling indoor air pollution, and assessing pesticide risks. In return, EPA provides incentives like vital public recognition and access to emerging information.

- **Further environmental education:** EPA advances educational efforts to develop an environmentally conscious and responsible public and to inspire personal responsibility in caring for the environment.
- **Publish information:** Through written materials on its Web site, EPA informs the public about its activities.

As of fiscal year (FY) 2005, EPA employs more than 18,000 people across the country, including in its headquarters offices in Washington, DC, in 10 regional offices, and in more than a dozen laboratories. The EPA staff is highly educated and technically trained; more than half are engineers, scientists, and policy analysts. In addition, many of its employees are legal, public affairs, financial, information management, and computer specialists. EPA is led by an administrator, who is appointed by the President of the United States.

One of the offices within EPA is the OCFO. The mission of EPA's OCFO is to "provide leadership in financial and performance-based management to achieve a cleaner, healthier environment" through the strategic operations of its offices. This group manages and coordinates the Agency's planning, budgeting, analysis, and accountability processes, as well as provides financial management services. Figure 1.1 presents the OCFO's organizational structure.

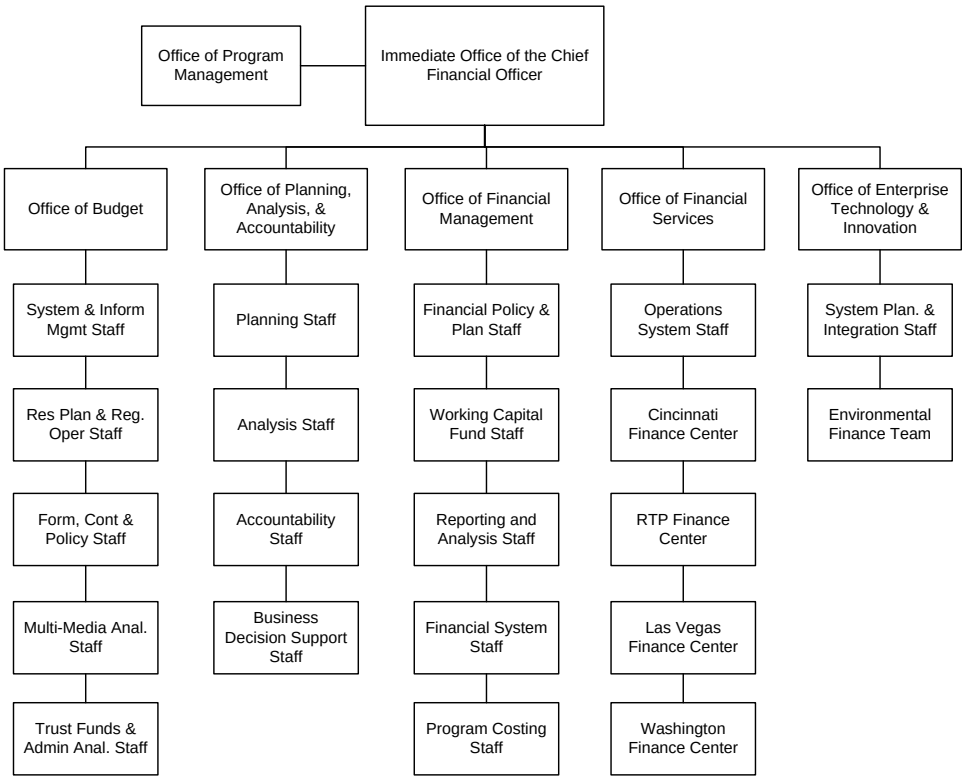

Figure 1.1. OCFO Organizational Structure

1.2 FinRS Plan Objectives and Scope

To perform its functions, the OCFO currently uses financial systems that, as they have aged, have become inflexible and costly to maintain. The FinRS plan, which proposes to analyze the legacy systems and replace those systems that are inefficient by today's standards, will promote increased integration among systems and will add new functionality, thereby improving EPA's ability to perform core financial management functions essential to achieve the Agency's mission. FinRS' plan to replace legacy systems encompasses all of EPA's financial business architecture functions and has been designed to meet the OCFO's IRM strategic vision. The components of this architecture, while in varying stages of their application life cycles, collectively constitute a single, Agency-wide source of official financial information that is easily accessible by authorized customers.

OMB's FM LoB is a government-wide initiative for financial management improvement. EPA will implement the financial system solution consistent with the FM LoB vision: to establish the framework for a government-wide financial management solution that is efficient and improves business performance while ensuring integrity in accountability, financial controls, and mission effectiveness. The goals identified for the FM LoB provide the underpinnings for EPA's FinRS plan:

Achieve or enhance process improvements and cost savings in the acquisition, development, implementation, and operation of financial management systems through shared services, joint procurements, consolidation, and other means

Provide for standardization of business processes and data elements

Promote seamless data exchange between and among federal agencies

- Strengthen internal controls through real-time interoperability of core financial and subsidiary systems.

The FM LoB is taking a collaborative, cross-government approach to defining the common elements that will support a market-driven model of shared services and cross servicing. EPA staff are fully engaged in FM LoB activities to ensure collaboration and alignment of EPA financial systems development work as the FM LoB is further defined.

1.2.1 FinRS Objectives

To help accomplish its overall mission, EPA relies on financial management functions such as Agency budget formulation and execution, accounting, payments and collections, Agency financial statements, and financial accountability reports. In FY 2003, EPA revised its strategic plan to include five goals—Clean Air, Clean and Safe Water, Protect and Restore the Land, Healthy Communities and Ecosystems, and Compliance and Environmental Stewardship. Each of these environmental goals includes several objectives. FinRS supports these goals through activities that capture and account for business event information, ensure budgetary integrity, and establish financial control over obligations and costs, performance, other financial assets, and information. In addition, FinRS activities produce accurate and comprehensive financial data, including stewardship and operating performance information, and enable effective decision-making at all levels to support cost effective mission achievement and risk mitigation. The FinRS investment will result in two broad outcomes, which are to:

Ensure fiscal integrity by maintaining accountability and control of resources:

Ensure budgetary integrity by establishing financial control over funds, obligations, assets, and liabilities

Safeguard and control Agency resources to prevent waste, fraud, abuse, and mismanagement

Ensure the reliability of the Agency's reported financial condition

Ensure efficiency in financial operations by maintaining an effective financial infrastructure

Ensure public confidence and credibility through effective financial management governance, accountability and stewardship.

Improve program performance by providing management information and decision support that links financial and program performance:

Maintain efficient business processes that capture and account for the financial components of business events

Enable effective decision-making at all levels of the Agency "business lines and functions" to support cost-effective mission achievement and risk mitigation

Disclose the cost and performance of EPA programs and activities to the citizens, the President, the Congress, program managers, and financial managers

Increase EPA's ability to address vital public needs

Improve the general performance of the Agency

Integrate budget and performance by providing full cost accounting for programs, projects, activities, and other performance measurement criteria.

EPA strives to provide the right information, at the right time, in the right format, to the right people. This means making quality environmental and management information available to decision makers for developing environmental policies and priorities. Moreover, to meet current and future requirements, EPA needs a flexible financial management system that can collect and process financial information and provide financial information to decision-makers. This system must be able to interact with program and performance systems to report environmental results and support the Agency's decision-making processes. The link between EPA's financial and program information is critical in demonstrating that the Agency appropriately uses resources in support of its mission.

The OCFO has established the following objectives and sub-objectives for the FinRS plan, as shown in Table 1.1.

Table 1.1. OCFO Financial Management Objectives

OCFO Objective	Sub-objectives	Source
1. Align with OMB FM LoB	▪ Enhance process improvements ▪ Achieve cost savings ▪ Standardize business processes and data models ▪ Promote seamless data exchange between Federal agencies ▪ Strengthen internal controls	▪ E-Government (E-Gov)

OCFO Objective	Sub-objectives	Source
2. Improve Financial Performance	▪ Automate internal processes to reduce costs internally and within the federal government by disseminating best practices across agencies ▪ Continue to support compliance with federal laws and regulations ▪ Streamline financial transactions and reengineer processes using best business practices ▪ Continue to expand the use of web-based technologies ▪ Improve management of obligations to the federal government by continuing to improve debt collection practices ▪ Continue to provide timely quarterly financial statements ▪ Continue to meet accelerated end of year reporting requirements ▪ Continue to measure system compliance with Agency ability to meet OMB and Treasury requirements	▪ President's Management Agenda (PMA) ▪ OMB Circular A-127 ▪ JFMIP ▪ Government Performance and Results Act (GPRA) ▪ Federal Financial Management Improvement Act (FFMIA) ▪ Federal Accounting Standards Advisory Board (FASAB) ▪ Federal Financial Management 5 Year Plan
3. Improve Financial Service to the Customer	▪ Create easy-to-find single points of access to government services for individuals ▪ Ensure Information Technology (IT) investments minimize the redundancy and maximize the integration within an agency, as well as maximize the interoperability between agencies ▪ Continue to develop financial management systems that provide timely, useable, reliable, and accessible financial information and reports to increase accountability and improve decision-making and program management ▪ Provide tools and reports that enable managers to budget and assess the full cost of programs and activities ▪ Offer common administrative services to achieve efficiencies and reduce cost ▪ Explore electronic processing options for grants ▪ Streamline grant payment delivery ▪ Support government-wide efforts to manage grant funds online through a common Web site ▪ Support government-wide electronic business processes, such as e-procurement ▪ Reengineer reporting processes and expand the use of web-based technologies	▪ PMA ▪ Information Technology Management Reform Act (ITMRA) ▪ Federal Financial Management 5 Year Plan ▪ FASAB Standards ▪ Chief Financial Officer (CFO) Council

OCFO Objective	Sub-objectives	Source
4. Maintain a Secure Financial System Environment	▪ Continue to maintain a secure systems environment ▪ Be consistent with current federal requirements, including National Institute of Standards and Technology (NIST) standards and with e-authentication and other initiatives ▪ Integrate cost-effective security into government information systems to enable, and not unnecessarily impede, agency business operations	▪ The Federal Financial Management 5 Year Plan ▪ E-authentication initiative ▪ OMB Circulars A-127 and A-130 ▪ Publications from NIST ▪ Executive Order on Critical Infrastructure Protection in the Information Age dated October 16, 2001
5. Improve Financial Accountability	▪ Continue to ensure sound accounting standards that provide the basis for financial statements and for consistent and reliable information ▪ Continue to prepare annual financial statements and obtain "clean" unqualified opinions ▪ Continue to require comparative financial statements ▪ Continue to report specific financial performance measurements	▪ PMA ▪ The Federal Financial Management 5 Year Plan ▪ OMB Circular A-123-Managemnet Accountability and Control
6. Improve Performance and Budget Integration	▪ Support the integration of program performance review with program budget decisions and the production of performance based budgeting ▪ Support the identification and monitoring of high quality performance measures and outcome measures of programs and provide support for competitive sourcing initiatives ▪ Integrate financial and performance information	▪ PMA

1.2.2 FinRS Scope

Below is a description of the components that comprise the planned OCFO financial system environment under FinRS:

- **Financial COTS Component** – The FinRS solution includes a JFMIP-compliant COTS core financial management package which will, at a minimum, replace EPA's legacy core accounting system, Integrated Financial Management System (IFMS). A number of payment-related applications (e.g., CPS, IDOTS) have been deployed to improve performance and enhance usability of IFMS. The FSMP solution should include a determination of the disposition of those applications given cost, risk, performance and change management considerations.
- **Administrative Data Warehouse Component –** EPA is constructing an ADW structured to maximize performance, usability, data integrity/quality, data integration, and data management. The objective of ADW is to deliver a common view of EPA's administrative data organized to

support analysis, reporting, and EPA's strategic decision-making. The ADW will be accessed by the OCFO Reporting and Business Intelligence Tool (ORBIT), a reporting and analysis tool based on the Business Objects platform, which will replace the legacy Management Accounting and Reporting System (MARS), a reporting application that produces both ad hoc and standard reports. As a separate initiative, EPA will transform the Financial Data Warehouse within the ADW to an ODS.

- **Planning Component –** Under the current target architecture, the Budget Automation System (BAS) is scheduled to be web-enabled. BAS is an EPA-designed and developed system that integrates the Agency's planning, budgeting, execution, and related reporting functions. In July 2004, BAS was reengineered and combined with the Performance and Environmental Results System (PERS), which tracks and reports progress toward meeting the requirements of the GPRA. The FSMP solution should explore the COTS marketplace to determine if a COTS product could meet this need or if the current system should be retained.
- **Cost Recovery and Imaging Component –** EPA will also reengineer the existing Superfund Cost Recovery Package and Image On-Line System (SCORPIOS), which summarizes the dollars spent on Superfund cleanup sites and supports the recovery of the costs, to operate on the web and to address other identified system weaknesses.
- **Enterprise Application Integration Component –** EPA acquired COTS EAI tools in FY 2003 (WebSphere). These integration tools will simplify and standardize the interactions between existing systems and facilitate the migration to new systems that exploit Internet, e-commerce, extranet, and other new technologies.
- **Payroll Personnel and Labor (PPL) Component –** The PPL component, which replaced the legacy payroll system, serves the payroll processing, time and attendance, and labor distribution functions at EPA. The payroll function will be transferred to the Defense Finance and Accounting Service (DFAS) in March 2006. The FSMP solution should explore whether EPA retains the labor distribution functionality developed under PPL (PeopleSoft based platform) or replaces it with a COTS product.
- **Travel Component –**Travel Manager (TM), the COTS software that automates the processing of employee travel, will be replaced with an e-Travel Electronic Travel Service (ETS) solution.

The FinRS plan assumes the maintenance of mission-critical legacy systems until the acquisition and implementation of the target financial system architecture. Figure 1.2 presents the Administrative Systems Target Architecture (ASA), which provides the overarching guidance for the FinRS plan, including EPA financial, Human Resources (HR), contracts, grants, and data warehousing architectural efforts.

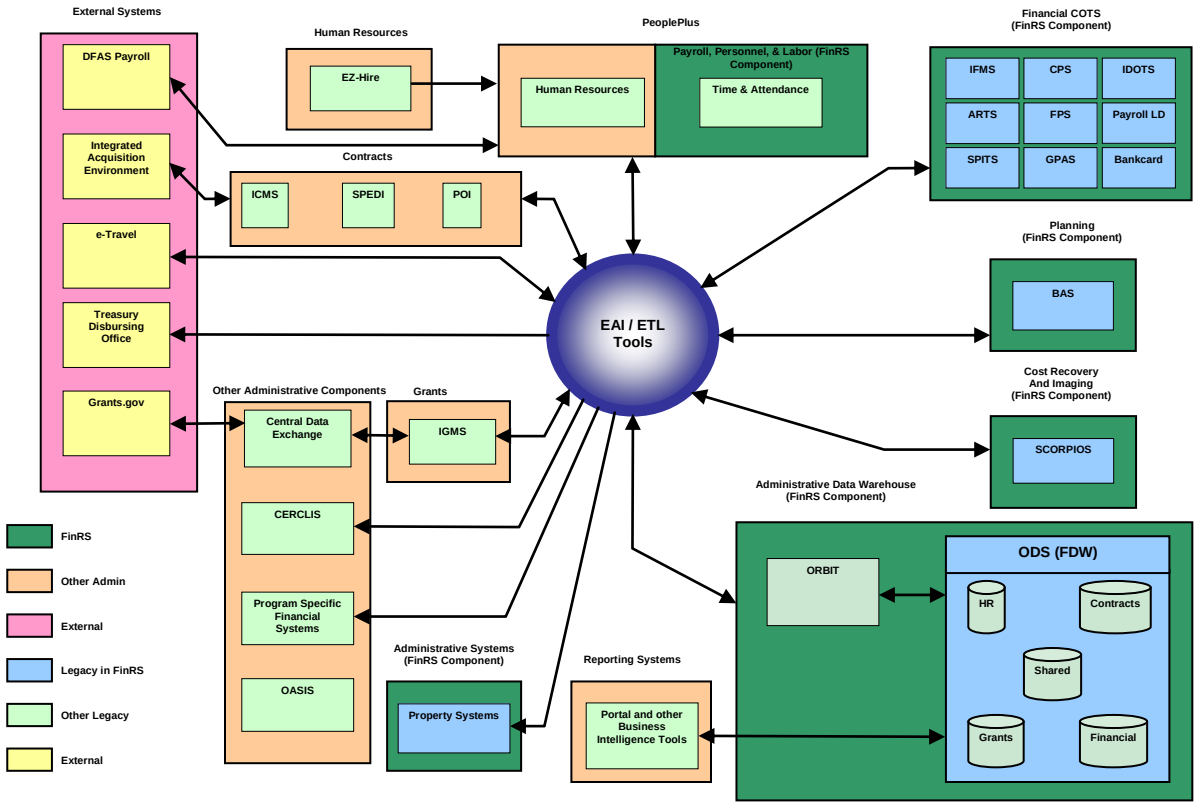

Figure 1.2. Administrative Systems Target Architecture

1.2.3 FSMP Overview

The FinRS plan will be implemented using a modular approach. The FSMP represents the implementation of several pieces of the FinRS plan and additional areas including:

Financial COTS component, which addresses core financial management functions (i.e., Budget Execution, Cost/Project Management, General Ledger, Payment Management, and Receivable Management).

Planning component, which addresses Strategic Plan Management and Budget Formulation functions.

The ODS, which is part of the overall ADW component.

The Payroll Labor Distribution module of the PPL component, which addresses a subset of the Cost Management function.

- Property Management, which is not a separate component of FinRS but is included in the scope of FSMP.

Figure 1.3 presents the relationship between FSMP and the FinRS plan.

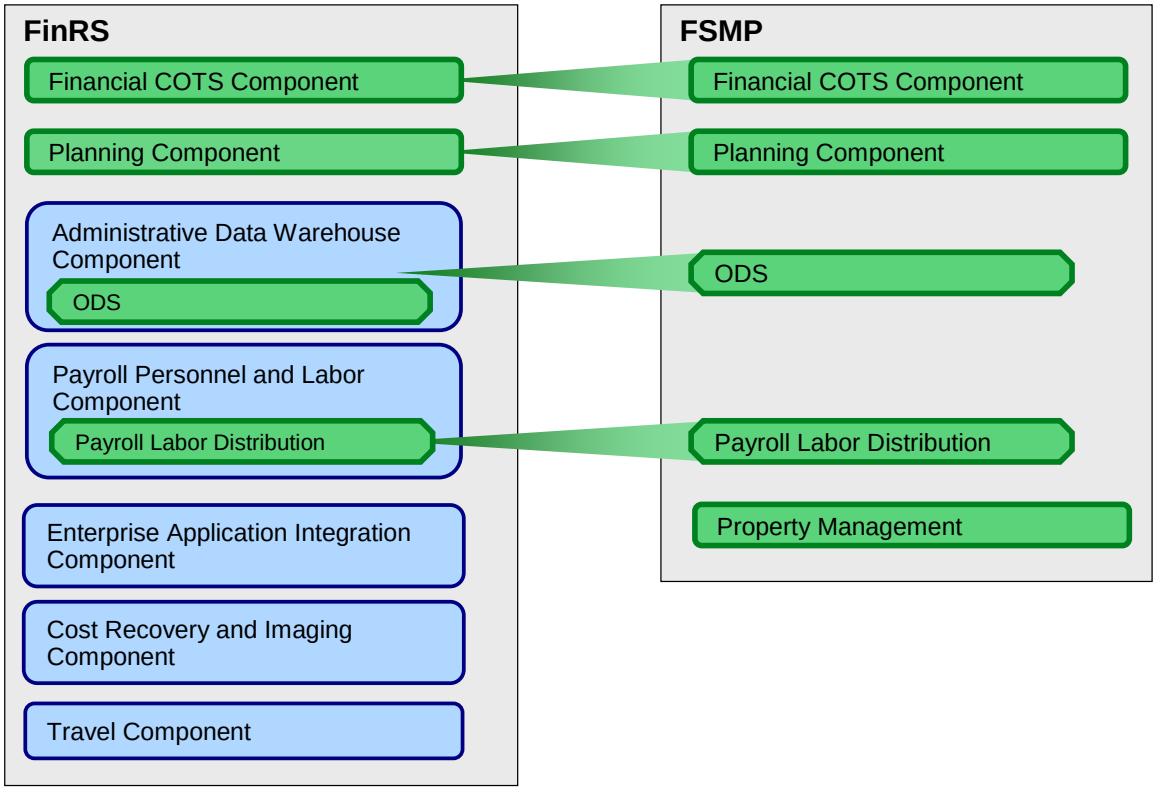

Figure 1.3. Relationship Between FSMP and FinRS

Table 1.2 provides a description of each of the functional areas included in the FSMP purview and the FinRS component to which it relates.

Table 1.2. Financial System Modernization Project Functional Areas

Related FinRS Component	Functional Area	Description
Financial COTS	**General Ledger**	Captures general ledger management activities for EPA and is the basis for external financial reporting. The General Ledger function includes Operation and Maintenance (O&M) of the core system consistent with established financial and related (e.g., record retention) laws, regulations, government-wide policies, and best practices. These activities set the framework in which all other core financial management functions operate.
Financial COTS	**Budget Execution**	Captures activities associated with executing the budget, such as tracking budget information and ensuring that EPA does not obligate funds in excess of those authorized. The Budget Execution function includes implementing the Enacted Budget in each Program Office and Region and adjusting funding associated with Agency goals and objectives as necessary to reflect the Enacted Budget funding levels. This function addresses all activities associated with executing budget plans, including validating the availability of funds, processing the funding requests initiated by other functions (e.g., payments, funds transfers), and monitoring budget resources and cost.

Related FinRS Component	Functional Area	Description
Financial COTS	**Payment Management**	Captures activities that provide appropriate control over all payments made by or on behalf of EPA. The Agency makes payments to vendors in accordance with contracts; to state governments under a variety of programs; to employees for salaries and expense reimbursements; to other federal agencies for reimbursable work performed; and to others for various reasons. The management of payments also includes credit card payment processing and reconciliation and Treasury payment processing, reconciliation and offset programs. These activities are supported by internal management reports and generate required external reports (e.g., IRS form 1099).
Financial COTS	**Receivable Management**	Captures activities relating to recording Agency cash receipts, including servicing and collecting receivables. Receivables are established to account for amounts due from others as the result of performance of services by the Agency, delivery of goods sold, the passage of time (e.g., interest earned), loans made to others that must be repaid, or other actions.
Financial COTS and Payroll Labor Distribution	**Cost/Project Management**	Captures activities required to measure the full cost of programs and their various elements, activities, and outputs. Cost management is essential for providing accurate program measurement information, performance measures, and financial statements with verifiable reporting of the cost of activities and enables activity-based costing to be conducted. The cost management process includes cost setup and accumulation, cost recognition, and cost distribution. The WCF, Superfund, and payroll labor distribution are examples of activities that are supported by cost management. EPA uses projects to track costs at a lower level of granularity. Project activities can be executed throughout the organization, such as in the program offices, regions, or headquarters.
Planning	**Strategic Plan Management and Budget Formulation**	Captures activities relating to goal-based budgeting and results measurement. The Strategic Plan Management and Budget Formulation functions include the division of EPA's long-term goals into annual increments of progress; determination of the resources needed to accomplish these annual results; development of the annual plan and budget; collaboration with Congress to enact the budget; translation of the enacted budget into an operating plan; oversight of ongoing activities, and execution of corrective actions when appropriate.
ADW	**Reporting***	Captures activities that maximize data integrity/quality, data integration, and data management. Delivers a common view of EPA administrative data organized to support analysis, reporting, and EPA's strategic decision-making. Supports tactical and detailed reporting, and produces both ad-hoc and standard financial reports.
N/A	**Property Management**	Captures activities required to account for the acquisition, maintenance, upgrade, operation, and disposal of both real and personal property. The Property Management function includes the financial aspects of monitoring and controlling the management of property to assure investments and property support organizational objectives.

**While reporting requirements addressed by JFMIP as part of core financial management requirements are included in the scope of this effort, management reporting requirements are not. ORBIT supports the management reporting requirements in the ADW component of FinRS.*

1.3 Assumptions and Constraints

This section discusses assumptions and constraints that might impact the outcome of EPA's FSMP. **Assumptions** are states or events accepted as true for the purpose of the project. **Constraints** are

conditions outside the control of the project that limit the overall solution or the selection of alternatives. Constraints are distinguished from preferences based on whether there is a business-related reason or consequence. Both assumptions and constraints are outside the control of the project, but they need to be considered so that mitigating plans can be developed and implemented so that success of the project will not be jeopardized.

This CONOPS was developed based on the following assumptions:

The solution will be consistent with the OMB FM LoB.

The software selected will be capable of remaining current with changing and evolving OMB, JFMIP, and security requirements and will be updated by the vendor in a timely manner to keep EPA compliant with emerging regulatory requirements.

Requirements will be met with a minimal level of customization (i.e., source code changes to the base product).

The FSMP solution will be evaluated to determine if a COTS product or suite of products should replace legacy systems or whether a combination of COTS products and legacy systems will provide the most effective and efficient solution.

JFMIP's reporting requirements only apply to the functionality sought in the FSMP with respect to standard and external reporting purposes. Management reporting is addressed by OCFO's ADW component.

Acquisition functions, which are managed by EPA's Office of Acquisition Management (OAM), will not be included in the scope of FSMP.

At the time the FSMP is implemented, the current or other stand-alone acquisition systems will be in place.

Linking the financial and acquisition systems, either through an interface or by using an integrated system, is a best practice in financial management.

The Strategic Lease and Asset Tracking System (SLATE) will continue to be used to track real property. The financial aspects of property currently performed in the IFMS will be performed in the new Financial COTS. Development activities for the Property Management Database (PMD) for tracking the non-financial management functions of personal property will continue.

- Key business challenges presented in the document are highlighted as examples and do not reflect the exhaustive list.

Future situations such as new laws, policies, procedures, mandates, and orders may affect the operations defined in this CONOPS. A review of the policies and procedures currently in place within EPA will be necessary to implement a consolidated, agency-wide system.

Conditions such as the Code of Federal Regulations regarding property, financial, and accounting requirements outlined in the JFMIP series of Federal Financial Management System Requirements; OMB's Circular No. A-127, Financial Management Systems; OMB's Circular No. A-123, Management's Responsibility for Internal Control; as well as other applicable standards of the Treasury, Government Accountability Office (GAO), FASAB, OMB, and EPA have been considered in the development of this CONOPS.

Below is a partial list of specific policies that are federally or EPA mandated, which may affect the FSMP.

Federally Mandated Constraints

Approach consistent with OMB's FM LoB Center of Excellence (COE) requirements

JFMIP certification for selected software

Federal Financial Management Improvement Act (FFMIA)

Government Information Security Reform Act (GISRA) (Title X, Subtitle G of the Defense Authorization Act)

Government Management Reform Act (GMRA)

Government Performance and Results Act (GPRA)

Paperwork Reduction Act (PRA)

Government Paperwork Elimination Act (GPEA)

Generally Accepted Accounting Principles (GAAP)

FASAB Standards

OMB Circulars A-123, 127, 130 , 134 & Memo 05-02

Executive Order 13327 that established the Federal Real Property Council

NIST Special Publications (800 series)

- FIPS 199

Federally Mandated Technical Constraints

Clinger-Cohen Act (CCA) (also known as the Information Technology Management Reform Act)

Section 508 of the Workforce Investment Act of 1998

Electronic Signatures in Global and National Commerce Act

OMB Circulars A-11 and No. A-130 (including Appendix III) security constraints

OMB Circulars A-123 (Management's Accountability and Control; Management's Responsibility for Internal Control beginning in FY 2006) and A-127 (Financial Management Systems)

Public Law 100-235 Security Constraints

Internal Revenue Code 6103 Security Constraints

IRS Publication 1075 Security Constraints

Presidential Decision Directive PDD-63

Freedom of Information Act amendments 5 USC 552 and 5 USC 552a

Computer Security Act of 1987 (Pub. Law 100-135)

DoD Standard 5015.2 for electronic archiving

Federal Information Security Management Act of 2002 (FISMA)

NIST Special Publication 800-53, Recommended Security Controls for Federal Information Systems

NIST Special Publication 800-60, Guide for Mapping Types of Information and Information Systems to Security Categories

NIST Special Publication 800-73, Interfaces for Personal Identity Verification

Federal Information Processing Standards Publication (FIPS PUB) 199, Standards for Security Categorization of Federal Information and Information Systems

- FIPS PUB 201, Personal Identity Verification (PIV) of Federal Employees and Contractors

EPA Technical Constraints

EPA IRM Policy Manual 2195

EPA Information Security Manual

EPA Office of Technology Operations and Planning (OTOP) Technical Operations Procedures and Standards, Risk Assessment Procedures

EPA Procedure for Developing Security Plans for IT Systems (issued 6/9/03)

EPA System Design and Development Guidance

EPA's System Life Cycle Management Policy

EPA Target Architecture, ASA (http://www.epa.gov/ocfo/modernization)

EPA Target Architecture, TRM (http://www.epa.gov/ocfo/modernization)

Interim Agency System Life Cycle Management Procedures

- Interim EPA Order 2100.4, Interim Agency System Life Cycle Policy

1.4 Case for Change

EPA's need to modernize its financial management systems is driven by many internal and external factors. Today's users see themselves in a new relationship with the systems that support government. This new paradigm emphasizes easy access to timely and accurate data. Users expect their automated tools to be performance "enablers," not obstacles to accomplishing their jobs. The general emphasis in government on increased accountability requires that managers have these tools. Technology is moving forward, and some government legacy systems will no longer be supported.

Since its implementation in 1989, IFMS has been EPA's core financial management and budget execution system. IFMS is a legacy financial mainframe system based on the American Management System (AMS – now CGI-AMS) Federal Financial System (FFS) COTS software. Over the past decade, new requirements and demands have been placed on EPA's financial systems, and the implementation of these changes has been costly both in time and resources. During the past 16 years, when IFMS was unable to accommodate EPA's needs cost effectively, new systems were developed to track or house information. In February 2002, EPA conducted an analysis of its current financial systems and documented the results in the *Strategic Assessment of EPA's Financial Systems, Current Systems Description*. This assessment identified the following pervasive themes for EPA's financial business functions and their supporting OCFO systems:

Inconsistent Data

Limited System Interoperability

Information Latency

Multiple Reporting Systems

High System Availability

Low System Usability

Proliferation of Cuff Systems

- Costly Maintenance

Using the data collected in the analysis, EPA aligned the needs of its financial stakeholders with management objectives and technical enablers to define the options for the future financial application architecture. A Workforce Assessment Study completed in April 2003 was used to project the staffing levels required to modernize EPA's financial systems. EPA prepared a business case that examined alternatives for replacing its financial management systems. The recommended alternative was a blend of COTS products and EPA-built systems for those areas where COTS products may not be able to support the business needs of the Agency.

In FY 2004, in response to the FM LoB, EPA revisited the previous business case for FinRS to ensure that the recommended alternative was consistent with the guidance available from OMB on the FM LoB initiative. EPA was actively involved in the FM LoB Inter-Agency Project Team, which examined methods to increase the efficiency and functionality of core financial management systems throughout the government. As a participant in the project, EPA worked in close collaboration with eight other agencies to leverage best practices in the financial management arena and focus on government-wide improvements. EPA co-chaired the FM LoB workgroup on enterprise architecture. In FY 2005, OMB moved the functions of the FM LoB to the Chief Financial Officer (CFO) Council Financial Systems Integration Committee, where EPA continues to be actively involved.

In addition to the guidelines set forth by the FM LoB, the PMA calls for "order of magnitude" improvements and advocates the use of IT to "simplify and unify" service delivery. Replacement of existing financial systems and related systems throughout EPA, in such a way to support the needs of

the diverse user community and to comply with regulatory requirements, should significantly improve the efficiency and effectiveness of the organization.

1.5 Overview of the Envisioned System

The envisioned system will be a COTS product or suite of products that address all of the functions within the scope of the FSMP. The FSMP will meet the functional needs of the users as defined in this CONOPS and will meet the detailed requirements defined in the Functional Requirements Specification document. Just as important as the functional requirements, however, are the usability requirements. The envisioned system needs to be intuitive and must present accounting information in terms that can be understood by users who may not be familiar with accounting terminology. The system must also enable EPA staff to manage workflow within the FSMP and between the FSMP and interfaced applications.

Information will be entered once into the envisioned system and shared as needed rather than entered into multiple systems, providing consistent data throughout EPA systems. Eliminating repetitive data entry not only streamlines the process, but also eliminates a source of data error.

Furthermore, the envisioned system will support the consolidation efforts underway at EPA. EPA's financial services will be consolidated into four service centers in FY 2006. The system will allow the regions to view the data that applies to them, even when the transaction has been posted in one of the consolidated service centers outside of their region.

On a technical level, the envisioned system will make maximum use of enabling technologies, e-Government initiatives, and EPA enterprise initiatives, while at the same time improving the efficiency and effectiveness of internal processes. Reducing the number of systems required for financial management will reduce the costs associated with completing the financial management mission, as well as provide for efficiency improvements.

The FSMP will also be compliant with OMB's FM LoB guidelines. As a result, it is anticipated that the system will be hosted either by another federal agency or by a commercial host.

1.6 Overview of the Document

This report is organized into the following sections:

- **Section 1 – Introduction**. Section 1 introduces the document, including background information on the EPA, the objectives and scope of the project, the current financial system environment, the case for change, an overview of the FinRS plan and the FSMP, the assumptions and constraints, an overview of the envisioned system, and an overview of the document's contents.
- **Section 2 – As-Is Environment**. Section 2 describes the current processing environment. This section includes an overall description of the performance of functions at headquarters and in the regions. It also illustrates how the current user operates within each functional area, provides examples of business challenges faced by EPA, and describes the existing financial management systems application architecture.
- **Section 3 – Target Environment**. Section 3 describes high-level areas of improvements to the current environment that senior leaders and technical managers would envision the new system to bring. The overview of the technical requirements includes the system architecture, the security overview, and the operations overview of the new system.

- **Section 4 – Impact Considerations**. Section 4 provides high-level operational and organizational considerations that may arise as part of the FSMP. This section also addresses potential risks and issues that the Agency faces as a result of this project.

Appendices. The following nine appendices supplement this report:

Appendix A: Stakeholder Interview Summary

Appendix B: Current Financial Management System Applications

Appendix C: EPA Business Reference Model Version 3.1 Definitions

Appendix D: Volume Statistics for Financial Management Applications

Appendix E: Information Class and Subclass Definitions

Appendix F: User Classes

Appendix G: Acronyms

Appendix H: Terms and Definitions

Appendix I: Reference Documents

2. As-Is Environment

This section describes EPA's current functional and technical environments, including the performance of functions at headquarters and in the regions and how the current user operates today for each function in scope. This section also describes the current financial management system.

An accurate understanding of the work currently performed is critical for moving forward with the FSMP. This understanding provides a starting point for the functionality that needs to be supported by the envisioned system, defines the users who will be affected, and shows the technical environment in which the envisioned system will operate.

2.1 Description of the Current Processing Environment

EPA's CFO is required by the Chief Financial Officers Act of 1990 to "develop and maintain an integrated agency accounting and financial management system." The OCFO is ultimately responsible for financial management at EPA. Groups within OCFO prepare the budget, report to Treasury, report to Congress, and manage EPA funds.

The following sections provide an overview of EPA's financial management processes and are based on EPA's Business Reference Model (BRM) version 3.1.[2] The following sections look specifically at *who* manages the functions and *how* the functions are supported at EPA. In addition, these sections highlight various business challenges that EPA encounters in its current processing environment. The functional areas that will be addressed in this section include the following:

General Ledger
Strategic Plan Management and Budget Formulation
Budget Execution
Receivable Management
Payment Management
Cost/Project Management
Property Management
Working Capital Fund

2.1.1 General Ledger

EPA's General Ledger (GL) function includes activities to operate and maintain the core system consistent with established financial and related (e.g., record retention) laws, regulations, government-wide policy, and best practices. These processes set the framework in which all other core financial management processes occur. The GL ensures that the procedures for capturing, classifying, communicating, processing, and storing data and transactions are uniform or can translate among various subsystems or system components as necessary. The shaded boxes of the BRM presented in Figure 2.1 illustrate the GL function as it has been defined for EPA.

[2] *The complete EPA BRM is provided in Appendix C of this document.*

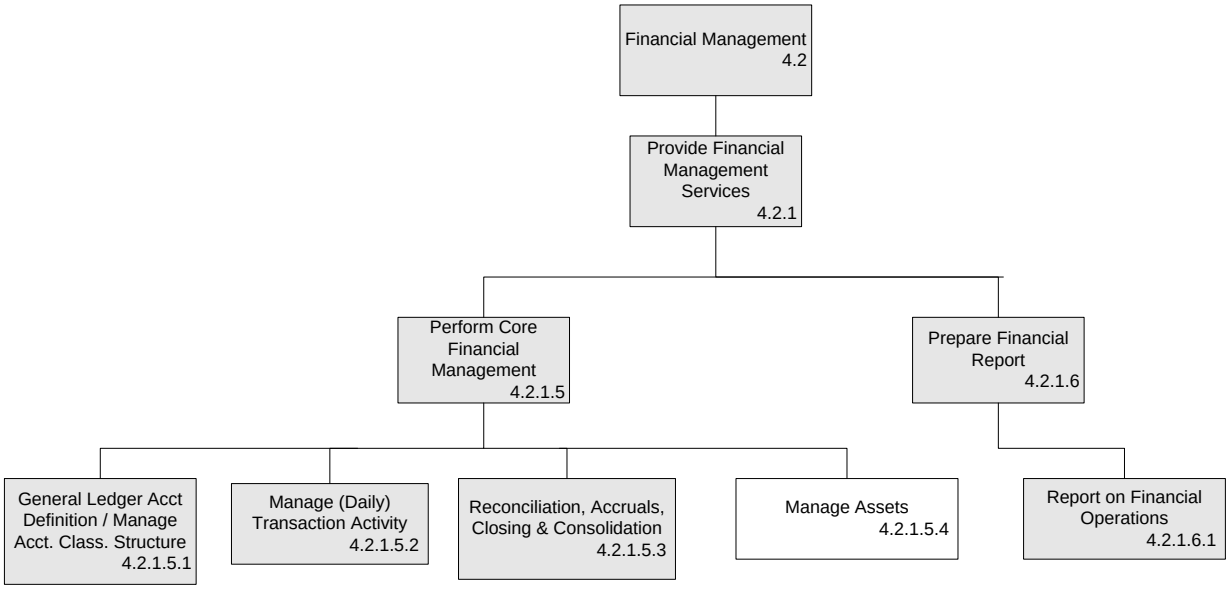

Figure 2.1. Business Reference Model: General Ledger

EPA's GL function is supported by staff within the Office of Financial Management (OFM) with support from the regions.

The following paragraphs outline EPA's current GL process, addressing who manages these functions and how the GL Account Definition/Manage Account Classification Structure; Manage (Daily) Transaction Activity; Reconciliation, Accruals, Closing and Consolidation; Report on Financial Operations activities are supported at EPA.

General Ledger Account Definition/Manage Accounting Classification Structure includes establishing, updating, and maintaining the GL accounts and supporting data elements to ensure compliance with the U.S. Treasury Standard General Ledger (SGL) account structure and to support EPA's reporting needs. In addition to establishing and maintaining debit/credit account codes in IFMS, this process involves maintaining information such as transaction codes and transaction types that dictate what type of GL updates will be made in IFMS, as well as maintaining those values that make up EPA's six-field accounting structure. OFM works with Reporting and Systems Analysis (RAS) staff, as well as other personnel who support the GL function, to identify any required changes to the IFMS GL maintenance tables. OFM then updates IFMS to incorporate the identified changes.

Manage (Daily) Transaction Activity is the process of maintaining transaction editing and posting the rules necessary to record, correct, and report the effects of financial transactions accurately. This activity includes the accurate recording of journal entries and transactions, and the required updates and corrections to GL account balances.

OFM establishes and maintains the editing and posting rules that EPA's transactions are subject to, such as tolerance amounts and required reference documents and processes any adjusting transactions.

Reconciliation, Accruals, Closing and Consolidation are the processes to close the GL for the accounting period and to prepare accounts for recording the next period's activity. Included in these processes are monthly and yearly reconciliations performed by OFM and regional finance offices to ensure GL accounts are in agreement with each other and are consistent with Treasury's records, monthly and yearly adjusting transactions are posting to the GL or subsidiary ledgers, monthly and

yearly posting of accruals and reversals, and automated monthly and closing processes within IFMS. Most of these processes are primarily automated within IFMS, although reconciliation between IFMS and Treasury (e.g., performing cash reconciliations) entails both manual and automated processes, particularly if "on-top" adjustments are required.

Report on Financial Operations includes the roll-up of financial data for internal and external report submission to Treasury, OMB, and other agencies/institutions as required. The execution and preparation of EPA's quarterly and annual financial reports requires a combination of automated and manual processes. While IFMS does support the generation of many external reports such as FACTS II and the SF-224, there is still a significant manual element involved. For example, the systems staff automatically generates the SF-224 from IFMS and provides the reports to the RAS staff. The RAS staff must then manually enter the data into the Treasury 224 system for formal submission. IFMS also supports the production of FACTS II reports; although users often use their own spreadsheets and manual worksheets they have developed to supplement the output from IFMS.

Most of the data required for reporting purposes is available in the system; however, there are some instances that necessitate performing manual adjustments to financial statements. These "on top" data adjustments often result from the need to incorporate data that should not necessarily be maintained in the system, such as public debt.

2.1.1.1 General Ledger Business Challenges

This section highlights a few of the GL business challenges.

The process of closing EPA's financial statements is cumbersome and time consuming. Many of the changes required during the closing process are the result of the EPA's legacy system. With the new system, the expectation is a streamlined process.

Central agency reporting is a heavily manual process. The effort required to produce the reports can be extensive and labor intensive. External reports, such as FACTS II, have been identified as particularly labor intensive.

Multiple uses of a limited accounting string and inconsistent use of certain accounting string elements results in difficulties in creating enterprise-wide reports.

Most EPA staff are not familiar with the GL role in financial management and reporting. Without an understanding of how the GL functions, users may not understand the implications of some of their actions in the financial system.

Currently, IFMS maintains many transaction types. For example, a new collections transaction type might be set up to distinguish Federal vendors from non-Federal vendors. Due to the many transaction types available, users sometimes select the wrong transaction type for the document they are processing. The system lacks extensive edits to prevent this from occurring. A more descriptive transaction code system would be useful.

The current system lacks drill-down and roll-up capabilities.

Changing the agency account structure and performing subsequent adjustments are a constant challenge. The difficulty lies with making an adjustment in the transaction structure which may have changed and identifying how transactions look as a result of the modified structure. For example, depreciation is an activity that occurs over an extended period of time. Over the course of the activity, the structure of the original transaction used to record the depreciation may have been modified and results in difficulties in conducting analysis and performing reporting activities.

2.1.2 Strategic Plan Management and Budget Formulation

For each fiscal year, EPA develops a proposed budget, which defines the goals and objectives toward which the Agency intends to work within the fiscal year and the funding the Agency believes is necessary to accomplish these goals and objectives. EPA's Strategic Plan Management and Budget Formulation functions support activities to prepare the annual plan and budget submission for incorporation into the President's Budget and work with OMB and Congress during the annual appropriations process. These activities are represented by the shaded boxes in EPA's BRM presented in Figure 2.2.

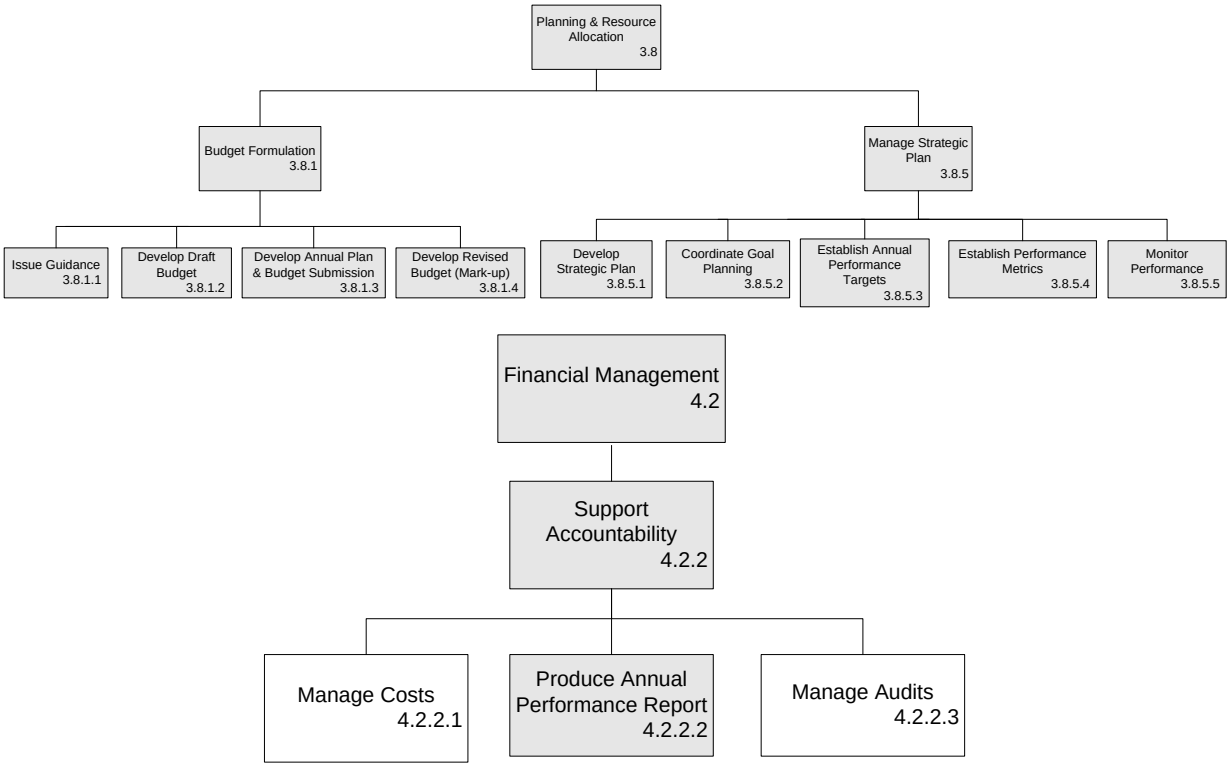

Figure 2.2. Business Reference Model: Strategic Plan Management and Budget Formulation

The Strategic Plan Management and Budget Formulation functions are supported primarily by the Office of Budget and Office of Planning, Analysis, & Accountability located in Washington, DC. While these offices are primarily responsible for the OMB submissions and external reports, they are supported by the regions, program offices and states, which provide data that is utilized for Strategic Plan Management and Budget Formulation processes, in addition to performing additional reporting and analysis. The following paragraphs outline EPA's Strategic Plan Management and Budget Formulation functions, addressing how the Issue Guidance, Draft Budget Development, Budget Submission and Testimony Development, Revised Budget Development, Manage Strategic Plan, and Produce Annual Performance Report activities are supported at EPA.

2.1.2.1 Budget Formulation

The Budget Formulation function includes activities to prepare EPA's Annual Plan and Budget Submission for incorporation into the President's Budget and work with OMB and Congress during the annual appropriations process. While the BAS serves as the Agency's primary support tool for budget formulation activities, there are multiple systems, spreadsheets, and other tools used in the program offices to provide a level of detail and tracking not offered in BAS.

There are four major activities that comprise the Budget Formulation function. The **Issue Guidance** activity includes the steps required to obtain input from the regions and programs within EPA. The Office of Budget sends a request to the regions and programs, including information on the format the information should take. Regions and programs provide their information to the Office of Budget for inclusion in the draft budget.

The **Develop Draft Budget** activity includes the steps necessary to take the raw data from the regions and programs and use it to develop draft budgetary figures. Using information provided predominantly in BAS, and supplemented with data from other auxiliary systems, the Office of Budget personnel perform trend analyses and data modeling and gather the budgetary information that enables them to formulate the budget.

The **Develop Annual Plan & Budget Submission** activity includes formatting the draft budget in accordance with OMB standards. In September of each year, the Office of Budget must submit EPA's proposed annual plan to OMB for review. Users are able to use a Visual Basic script to pull financial data from BAS, and they supplement this data with narratives that are pulled from fact sheets and Microsoft Access databases. Once the information has been compiled, EPA submits the annual plan to OMB for review.

The **Develop Revised Budget (Mark-up)** activity includes the steps to revise the budget based on OMB' review and feedback. Once the annual plan is submitted, OMB reviews and modifies the plan based on the President's priorities. Near the end of November of each year, OMB provides feedback to EPA on the approved funding levels. EPA then uses the feedback provided to revise the annual plan and resubmit it to OMB by the end of January for submission to Congress in early February.

2.1.2.2 Manage Strategic Plan

GPRA requires every agency to develop a long-range strategic plan that presents that agency's mission and establishes clear goals and objectives against which performance can be measured. The **Develop Strategic Plan** activity includes the steps to develop a five-year strategic plan to achieve the EPA's mission to protect human health and the environment. EPA develops its strategic plan in consultation with states, tribes, and local governments, as well as other federal agencies and public interest groups. GPRA requires that agencies update their strategic plans at least once every three years.

The **Coordinate Goal Planning** process involves determining which activities program offices will carry out year-by-year to achieve the desired outcomes and how they will measure their performance. In this step, the strategic planning group establishes the agencies' goals and objectives, setting the priorities, identifying key programs, and articulating the desired outcomes. The Goal leads participate in goal meetings and budget forums over a several month period to discuss and determine the agencies' goals and objectives.

The next step in this process is to **Establish Annual Performance Targets**. Each of the identified goals is supported by a series of objectives that identify what environmental outcomes or results EPA seeks to achieve within a defined time frame using resources that are expected to be available. EPA managers establish these objectives based on their potential to reduce risk, their responsiveness to statutory mandates, and their contribution to pollution prevention and deterrence. EPA currently has 21 objectives that support its goals.

The high-level Goal data is formulated offline and subsequently manually loaded into BAS. After the Goals are loaded into BAS at a high level, the regions and the program offices can access BAS and break down the information to a lower level of detail. In some instances, the level of detail desired

cannot be handled within BAS and program offices use auxiliary systems and spreadsheets to perform the breakdown.

Once the Goals and Objectives have been established, EPA program managers must determine what activities they will carry out year by year to achieve the desired environmental outcomes, as well as how they will measure their performance. To translate the goal planning into specific actions to be conducted and resources to be allocated for the fiscal year, EPA prepares Annual Performance Plans as required under GPRA. For each Objective established in the strategic plan, the Annual Performance Plan describes (1) specific performance goals and measures and (2) activities that will be carried out during the year to achieve the performance goals. These activities are collectively referred to as the **Establish Performance Metrics** process. The performance metrics are entered into BAS and can be accessed by the regions and program offices.

Once the performance metrics have been established, the regions and program offices access BAS and "sign up" for commitments that contribute to meeting the established metric that has been assigned to the Agency's goal. This process, based on a bidding process, enables the programs and offices to determine stakeholder commitments. Furthermore, EPA can **Measure Performance** relative to these metrics. Regions and program offices update BAS, as well as auxiliary systems, with their progress toward achieving the performance metrics. By using a combination of the spending and outcomes that are tracked based on the metrics, EPA can determine how many of the metrics are met, how cost effective the performance was, and thus how well the overall goals from the Strategic Plan are met.

This data, along with other collected cost/project management data, is utilized to produce the **Annual Performance Report**, which includes documenting the Agency activities and performance, as well as documenting performance results for each of EPA's goals.

Using the Goals/Objectives structure, the Agency is able to develop the Annual Performance Plan, which presents the Agency's budget linked to EPA's performance commitments for the year.

2.1.2.3 Strategic Plan Management and Budget Formulation Business Challenges

This section highlights a few of the Strategic Plan Management and Budget Formulation business challenges.

Currently, it is difficult to integrate efficiently structured data (tables) and unstructured data (narrative text) in ways needed to produce budget justifications, issue papers, fact sheets and other budget documents. In addition, it is difficult to collaboratively develop, review, and sign off on budget documents within the Agency and between the Agency and external parties (e.g., OMB).

EPA is recognized as a leader in budget and performance integration. However, it is difficult and labor intensive to manage the impacts of changes to strategic planning, performance and program evaluation structures across time, which is needed to generate budget trend information for the upcoming budget year (e.g., budget year and at least three prior years).

EPA's budget structure contains a complex mix of appropriations, goals, objectives, programs, and organizations. Robust modeling tools are needed to insure consistency in the development of budget estimates.

- Measuring and matching an input with its corresponding output and outcome in the same or future fiscal year can be difficult. For example, a Superfund cleanup can take ten years, so an output or an outcome toward the end of the process does not reflect the resources spent in that same year. Also, there is little consistency in gathering performance data. Essentially the data that is used is whatever data is available, and the states and other third parties do not necessarily track data consistently. For example, many states operate on a different fiscal year cycle than does EPA.

2.1.3 Budget Execution

EPA's Budget Execution function supports activities associated with controlling EPA's internal funds, establishing rules for budget operations, distributing funds internally, and monitoring EPA's resources and available funds. These activities are represented by the shaded boxes in EPA's BRM presented in Figure 2.3.

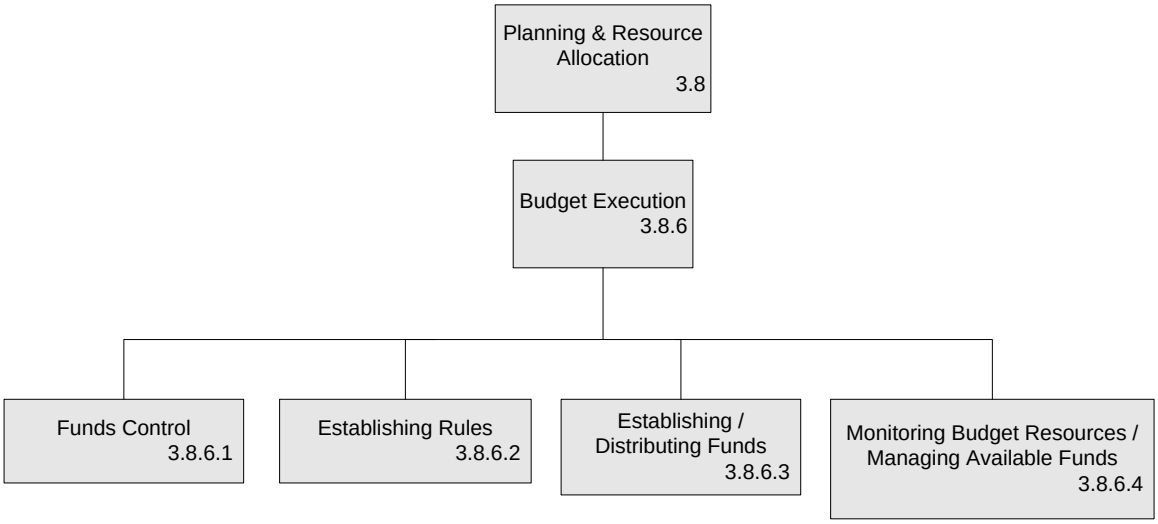

Figure 2.3. Business Reference Model: Budget Execution

The Budget Execution process is supported by the Office of Budget, the regions, and the program offices. The Office of Budget establishes and maintains the higher levels of the budget while the Responsible Planning Implementation Officer (RPIO) maintains his or her own operating allowances. Commitments and obligations are entered and maintained by the office that handles the function. The following paragraphs outline the Budget Execution process, specifically how the Funds Control, Establishing Rules, Establishing/Distributing Funds, and Monitoring Budget Resources/Managing Available Funds activities are supported at EPA.

Funds Control includes activities that ensure adequate control over spending. It includes accurate recording and reporting of commitments, obligations, and expenditures. This process supports verifying funds availability at control levels appropriate to the budget. Funds Control policies and procedures are governed by Directive 2520 "Administrative Controls" (http://www.epa.gov/ocfo/modernization).

Establishing Rules includes activities for establishing business rules for processing financial (i.e., commitment, obligation and expenditure) transactions.

Every three years, EPA is required by law to update its strategic plan and has chosen to match its budget structure to its strategic plan. To map spending to the budget, EPA's budget execution personnel must update their budget execution structure accordingly.

Establishing/Distributing Funds includes establishing business rules for processing budgetary transactions, as well as processes for establishing and distributing funding to lower levels of the budget. Budget allocations for each phase of the budget process are uploaded by the different organizations into BAS. At this point, allowance holders use BAS to perform the budget distribution. Once the Operating Budget has been set and approved in BAS, the database is downloaded into IFMS. It is at this point that the operating plan is established and becomes the basis for the actual expenditure of funds. Some regions and programs maintain additional tools to track funding to a lower level of detail than is available in IFMS for greater control and accountability.

Commitments and obligations are entered and maintained in IFMS by each office. Commitments are required for all activities with the exception of payroll. Prior to committing the funds in IFMS, it is required that a Funds Control Officer (FCO) review and sign the commitment document. The FCO also assigns a Document Control Number (DCN) that provides tracking for the life of that commitment. Only after the Obligating Official signs the agreement can the funds be considered officially obligated and posted as an obligation in IFMS.

Monitoring Budget Resources/Managing Available Funds includes supporting the establishment and maintenance of funds control business rules at detailed levels, at or below the level of the operating plans, and the processing of funding request documents based on the established structure.

Monitoring budget resources and managing funds takes place both within IFMS, BAS, and data warehouse and reporting systems including MARS and the Financial Data Warehouse (FDW), as well as within additional tools developed by the regions and programs to track information not readily accessible in the other systems. Users are able to access inquiries and reports from these systems that provide the current status of funds availability, as well as the status of commitment and obligation data.

2.1.3.1 Budget Execution Business Challenges

This section highlights a few of the Budget Execution business challenges.

EPA has multiple appropriations, which include single-year, multi-year, and no-year funding and are used to fund the purchase of goods and services. Each payment then requires multiple lines of accounting. The data entry and subsequent tracking is a time-consuming and cumbersome process.

Recertification of funds that have previously been deobligated is a difficult and labor-intensive process using the current system.

Verifying reimbursements from third parties using the current system is difficult. Receipt of funds must be validated before issuing reimbursable authority.

Reimbursable authority is currently issued for a single year and does not roll over from year to year, resulting in a labor-intensive reissuing process.

Capturing and maintaining necessary information (authorizations, purpose, and approvals) on fund reprogrammings is a complex, manual process.

Entering funds control information into the system (reference tables, user-defined limits, travel ceilings, etc.) is a time-consuming and labor intensive process. An automated approach would increase budget execution efficiencies.

The existing environment lacks the ability to establish flexible settings for floors, ceilings, and restricted use funds.

The existing system does not provide the flexibility to establish office-specific funds control processes without subjecting actions to the agency's formal control processes.

Currently, EPA does not have a way to crosswalk into new budget structures efficiently, particularly for structures dating back more than two strategic plan cycles. Moving forward, the need exists for automated crosswalks to assist the Agency in adapting to the evolving financial environment.

2.1.4 Receivable Management

EPA's Receivable Management function supports activities associated with recognizing and recording debts due to the government (including receivables associated with reimbursable agreements), performing follow-up actions to collect on these debts, and recording agency cash receipts. These activities are represented by the shaded boxes in EPA's BRM presented in Figure 2.4.

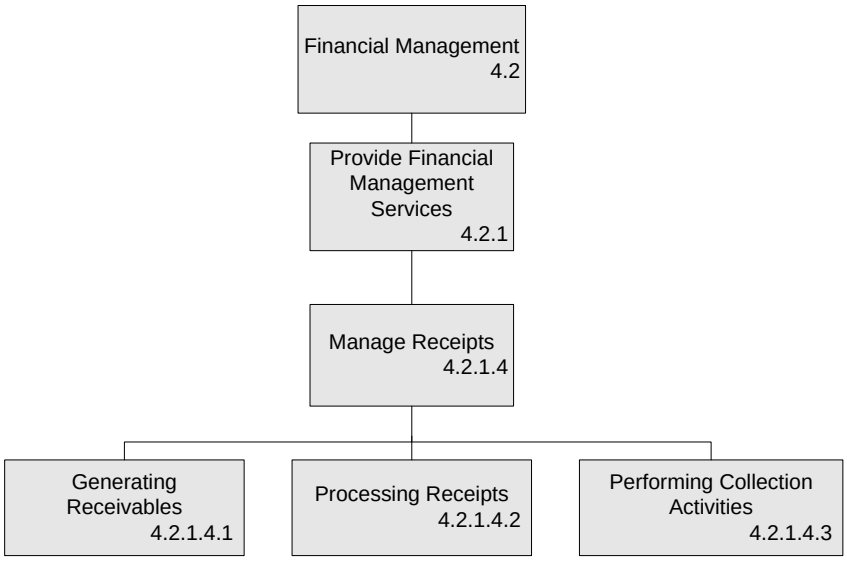

Figure 2.4. Business Reference Model: Receivable Management

EPA's Receivable Management function is currently a decentralized process involving all of the regions and offices. The four Finance Centers (located in Washington, D.C., Cincinnati, Las Vegas, and Research Triangle Park) perform the majority of receivable activities specific to their Centers' specialty. The following lists the specific type of receivable and the office primarily responsible for the processing and tracking of the information:

Payroll: Washington, D.C.

Inter-Agency Agreements (IAG): Cincinnati

Travel: Cincinnati

Bankcard: Cincinnati

Grants: Las Vegas

Simplified Acquisition Purchase (SAP): Research Triangle Park

- Contracts: Research Triangle Park

Each of the regions is responsible for tracking and maintaining its own receivables related to small purchase refunds, grants awarded in the regions, as well as activities related to Superfund cost recovery and other regulatory programs.

The following paragraphs outline EPA's Receivable Management function, specifically addressing how the Generating Receivables, Processing Receipts, and Performing Collection activities are supported at EPA.

Generating Receivables includes establishing and updating the customer record, entering and calculating the indebtedness transaction in the system, and generating single and multiple debtor notifications that include charges related to a single event or a series of billable events. EPA's Receivable Management function has been described as a primarily manual process for gathering the data used to create the receivables. The Finance Centers currently use manual processes or auxiliary systems to perform calculations and produce billing notices and subsequently record the effect of the receivable in IFMS.

Processing Receipts includes the activity of recording, correcting, or adjusting receipts and activities associated with depositing funds. This process is a similarly manual process, where a majority of the

receipts are received via wire transfer or manual check, although some receipts from federal agencies are automatically received via Intra-Government Payment and Collection (IPAC). These collections are then verified for accuracy, recorded as a collection in IFMS, and subsequently deposited to Treasury using IPAC or the SF-215. Deposits are later verified using Treasury's CASHLINK system.

Performing Collection Activities includes all activities related to the management and disposition of uncollected accounts receivable. Outstanding debts exist for current or former EPA employees and debtors external to EPA. This process includes identifying the accounts receivable transaction that will be collected, the aging of the receivable, and the generation of dunning notices. Separate databases and spreadsheets have been developed for users to track aged receivables and develop dunning notices. In addition, users utilize separate systems or tools to calculate interest that is applied for late payments.

If after 120 days for Superfund-related activities, and after 180 days for other types of activities, payment has not been received, the debt will be referred to the Department of Justice (DOJ) (for Superfund) or Treasury to collect the debt. After two years, debts that have not been collected become labeled as "active but not currently collectable."

2.1.4.1 Receivable Management Business Challenges

This section highlights a few of the Receivable Management business challenges.

EPA does not have a robust receivable system. Many of the receivables processes (e.g. generating billing and dunning notices, recording interagency agreements, and referring delinquent accounts to Treasury and DOJ (for Superfund)) are currently manual functions.

The current system does not allow users to modify receivable data without backing out and re-entering the entire transaction. The process for error correction is cumbersome and labor intensive.

- There is currently no automated process for Doubtful Accounts. An automated process would assist the agency in efficiently managing its debt portfolio.

2.1.5 Payment Management

EPA's Payment Management function supports activities to provide appropriate control over all payments made by or on behalf of the Agency. EPA makes payments to vendors in accordance with contracts; to state governments under a variety of programs; to employees for salaries and expense reimbursements including travel; to other federal agencies for reimbursable work performed; to individual citizens receiving federal benefits; to recipients of federal loans; and for many other reasons. The management of payments also includes credit card payment processing and reconciliation and Treasury payment processing, reconciliation, and offset programs. These activities are supported by internal management reports and required external reports (e.g., IRS form 1099). The shaded boxes in the BRM presented in Figure 2.5 illustrates the Payment Management function as it has been defined for EPA.

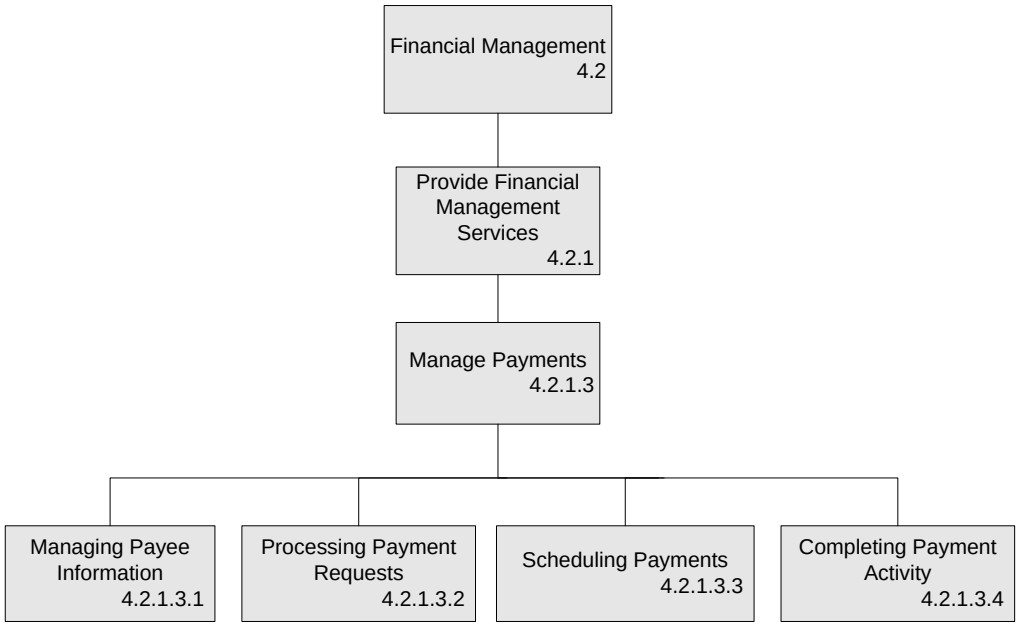

Figure 2.5. Business Reference Model: Payment Management

As with the Receivable Management function, EPA's Payable Management function is currently a decentralized process involving all regions and offices. The four Finance Centers perform the majority of payments specific to their Centers' specialty, as noted in the previous section. The following paragraphs outline EPA's Payment Management function, specifically addressing how the Managing Payee Information, Processing Payment Requests, Scheduling Payments, and Completing Payment activities are supported at EPA.

Managing Payee Information involves establishing and maintaining payee information, including vendors, employees, government agencies and others as applicable. It also includes the ongoing process of updating payee files to reflect applicable changes and archiving historical information in accordance with record retention regulations. Presently, representatives at each of the accounting points are responsible for the maintenance of vendor information within IFMS.

Processing Payment Requests includes activities such as receiving invoices and vouchers, pre-payment auditing, and recording and approving payment requests. EPA processes numerous types of payments, including grant payments, interagency agreements, travel payments, Bankcard/Purchase Card payments, contract payments, and SAPs. The payment process begins after an obligation has been entered into the system. After that point, the process that is employed is dependent upon the type of payment being made. The specific process for each type of payment is defined below:

- **Travel Payments** – The travel payment process originates in EPA's travel system, TM (soon to be upgraded to the eTravel system, GovTrip). Information is entered into TM and subsequently sent to IFMS for payment via an interface. Once the payment is processed in IFMS, a separate utility generates an email notice to the traveler that the payment has been made.
- **Bankcard and Purchase Card Payments** – A listing of credit card transactions is downloaded from the bank on a daily basis to the Purchase Card database. The credit card holder is then notified with an automated email from the database that a transaction is available for their assignment of accounting data. At the time the purchase is validated, the system verifies that a valid commitment exists in IFMS. If adequate funding is not available on the commitments, the interface is able to automatically generate the appropriate funding on the commitments and obligations. Once these

processes are complete, the data is sent via interface to IFMS where the payments are then processed.

- **Inter-Agency Agreements** – Inter-Agency Document Online Tracking System (IDOTS) is utilized for the processing of IAGs. IAG obligations are sent by fax to the IAG specialists in Cincinnati where they are manually entered into the IDOTS system. The IAG invoices are automatically downloaded from IPAC into IDOTS. At the end of the day, the separate obligation and payment data is extracted from IDOTS to IFMS, where the payment invoices are recorded at the summary level (in a suspense account). The payments must then be manually matched to the correct obligation in IFMS, effectively moving the payment from the suspense account to the proper account. If necessary, a redistribution can be performed to move the expense from a generic to a site-specific account, for example.

- **Grant Payments** – The process begins when the Grant Office makes an award. The Grant Office submits the award to the Finance Office who enters the obligation into IFMS. Data is extracted from the Integrated Grants Management System (IGMS) into the Grants Information and Control System (GICS), which contains administrative, project, and financial data for all EPA's grants, interagency agreements, and cooperative agreements.

  Approximately 80 percent of grant payments are made through the Treasury's Automated Standard Application for Payments (ASAP) system. EPA receives one file from ASAP and loads the payment data into the Grant Payment Allocation System (GPAS) together with other grant transactions. The payments are subsequently parsed out to each of the offices by Agency Location Code (ALC) via e-mail. The office is then responsible for recording the payment in IFMS. Some offices, such as Las Vegas, are able to automatically submit data from this database to IFMS via an interface from GPAS for payment; however, in instances where this is not available, the data must be manually recorded in IFMS.

  Because grants often use multiple appropriations and lines of accounting data, the grants process requires that individual payments be able to cross numerous line items using a percentage allocation process. Users at the Las Vegas Finance Center utilize GPAS to perform this allocation process prior to uploading the data into IFMS.

- **Contract Payments** –The contract specialist enters new contract awards and modifications into OAM's Integrated Contract Management System (ICMS). ICMS automatically pulls forward accounting data from the commitment in IFMS into the obligation created in ICMS. Once the data is entered into ICMS, OAM sends the obligation information to the Research Triangle Park (RTP). The information is then manually entered into the Contract Payment System (CPS). CPS, similarly to ICMS, automatically pulls forward accounting data from the commitment in IFMS to the obligation that is created in CPS to reduce accounting strip errors. When invoices that require payment are received, they are scanned into CPS and processed according to Prompt Pay regulations. Once all of the data for the payment has been entered, the information is pre-verified in CPS and an e-mail message is sent to the project officers that the invoice needs to be approved in EPA's Electronic Approval System (EASY), within 15 days. Once approved, CPS prepares invoice payment files and transmits both check and Automated Clearing House (ACH) payment schedules to Treasury. CPS also sends a file to IFMS to record the effect of the obligation and the payment in the system.

- **Simplified Acquisition Purchases** – Office of Administration and Resource Management (OARM) issues purchase orders through the Small Purchase Electronic Data Interchange System (SPEDI). SPEDI is able to retrieve commitment data from IFMS and pull forward the accounting information into the obligation document to reduce accounting string errors. It also enables users to track data at the commodity level. Purchase order information is subsequently sent to IFMS on a daily basis.

Once the obligation data is entered, users are able to enter payment information directly into IFMS or via Small Purchase Information Tracking System (SPITS). SPITS has an automated interface with IFMS to receive obligations and to make invoice payments. In addition to its invoice processing functionality, SPITS provides workflow and workload functionalities that enable managers to assign and monitor transaction processing according to individuals' workload and payment priority. As a result of the functionality provided by the system, SPITS users have effectively eliminated their need to use IFMS.

Scheduling Payments is the process of developing a schedule of payments and remittance information to be submitted for disbursement. The schedule is developed based on approved payment transactions in accordance with Prompt Pay and other relevant requirements. Payments are grouped by payment method, type, and format.

Once the payments have been entered into the appropriate payment system and have been approved, payments can be grouped by payment method, type, and format to be sent to Treasury for payment. Approximately 80 percent of EPA's grant dollars are paid via the ASAP system. ASAP is a recipient-initiated payment and information system designed to provide a single point of contact for the request and delivery of federal funds. Additional EPA systems, including IFMS and CPS, have the capability to automatically prepare payment files and transmit check and ACH payment schedules to Treasury.

Completing Payment Activity is the process of performing final review, resolution of payment discrepancies, allocation/reposting of any identified charges, and compilation of comprehensive payment information necessary to meet internal and external reporting requirements. After Treasury has made the payment to the vendor, Treasury sends confirmation of all payments, including those that originated in ASAP, CPS, or IFMS. Included in this interface are the payment date and the check/EFT trace number that EPA users can utilize to respond to vendor inquiries.

2.1.5.1 Payment Management Business Challenges

This section highlights a few of the Payment Management business challenges.

EPA processes a large volume of payments that are subject to the Prompt Pay legislation. It can be difficult for financial staff to prioritize the payments. Invoices come in from a large number of different vendors using different formats and standards. EPA developed a custom system to manage the workload, including the urgency of the payment, to better meet this challenge.

Grant recipients process their payments directly through Treasury's ASAP system. EPA must then allocate the payment to the correct obligation lines based on the limited information from Treasury. EPA developed a custom system, GPAS, to automate this process.

Treasury does not provide accounting information for IAG payments. EPA must determine which obligation to associate the payment with based on limited information. In addition, IAG payments must be tracked as direct or reimbursable. Direct and reimbursable information is not tracked in IFMS. EPA developed the custom system IDOTS to assist with IAG payments.

Fellowship payments are made according to schedules that are based on the universities' schedules. Processing these payments had been a time-intensive effort. EPA developed the custom system Fellowship Payment System (FPS) to automate this process.

The current system has limited capability for electronic invoicing and electronic approval for the majority of contract payments, requiring manual data entry. The use of electronic invoices and approvals would reduce the level of effort required to processes these payments.

For contract payments, data from the contract is not available in the financial system to validate that payments against the contract are valid. EPA has developed a custom system, CPS, that brings together procurement and financial data to meet this challenge.

EPA maintains separate acquisitions, grants, and financial management systems, each with its own vendor file. The lack of a common vendor file among these systems creates inconsistencies and data entry issues.

2.1.6 Cost/Project Management

EPA's Cost/Project Management function supports activities associated with measuring the total cost and revenue of programs and their various elements, activities, and outputs. Cost/Project Management is essential for providing accurate program management information, performance measures, and financial statements with verifiable reporting of the cost of activities. The activities associated with the Cost/Project Management function are represented in EPA's BRM presented in Figure 2.6.

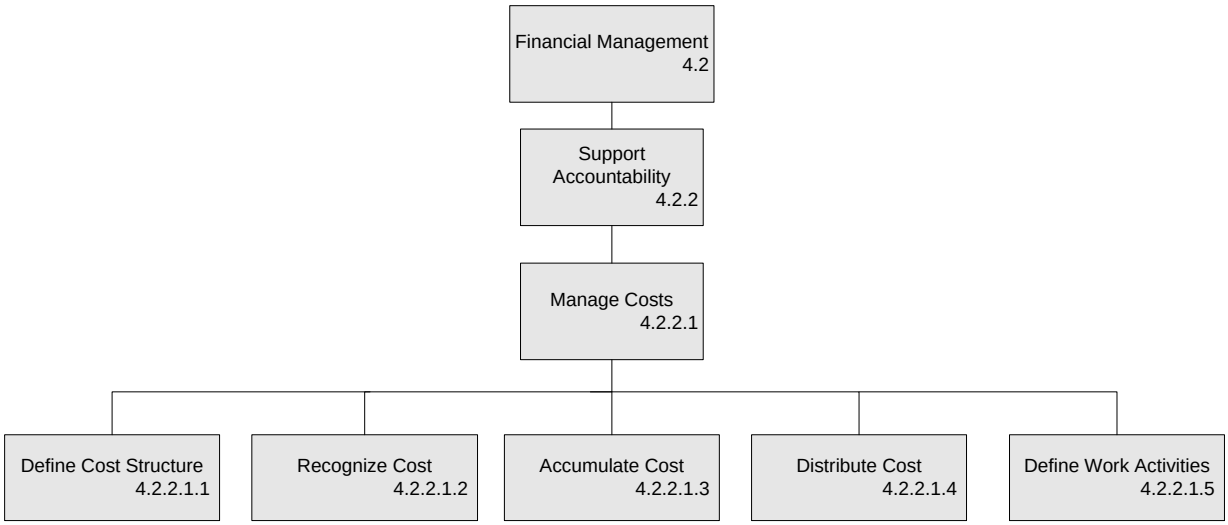

Figure 2.6. Business Reference Model: Cost/Project Management

EPA uses projects to track costs. Project activities can be executed throughout the organization such as in the program offices, regions, or headquarters. Although many projects do have a defined outcome, beginning, and end date, EPA also tracks some ongoing work as a project. Projects are often used as a way to group activities associated with milestones and related data for analysis.

The following paragraphs outline the Cost/Project Management process, specifically how the Define Cost Structure, Recognize Cost, Accumulate Cost, Distribute Cost, and Define Work Activities processes are supported at EPA.

Define Cost Structure – The function of cost management begins with establishing the cost structure, sometimes called the accounting string. The EPA cost structure consists of the accounts and data elements used to guide the accurate recording and reporting of the financial transactions of the Agency or its components. Elements of the cost structure provide a consistent basis for consolidating financial information; performing integration planning, budgeting, and accounting; and capturing data at the lowest levels of detail required to support management control and decision-making. In addition to the standard cost objects (e.g., organization, program, activity, contracts, customers, and work orders), EPA supports the identification and establishment of the cost objects for reimbursable agreements, Superfund activities, budget and congressional initiatives or earmarks, and Agency strategic goals.

Financial managers, program managers, senior EPA management, and external organizations such as OMB, FASAB, and Treasury identify the underlying requirements and ongoing changes to those

requirements. As identified, they are incorporated into the cost structure as part of the maintenance process.

The cost structure is currently restricted to some extent by the capacity of IFMS. IFMS has a limited number of fields available, and each field permits a limited number of characters.[3] To accommodate these limitations and meet changing accounting requirements, EPA has developed a number of crosswalks and business rules.

Recognize, Accumulate, and Distribute Costs – Once the cost structure has been established for a given operating year, the cost implications of transactional activity can begin to be captured. Based on the established cost structure and associated business rules, IFMS and other auxiliary systems capture and attribute costs based on where and when the costs are incurred. Users utilize various fields that are available to them in IFMS such as the site project field and budget organization field, as well as the DCN, to track activity against various projects and initiatives.

After recognizing costs, the activity of accumulating costs can be performed. This activity entails collecting and compiling recognized cost data based on defined parameters. Cost data are accumulated on a recurring basis (e.g., daily, monthly, quarterly, or annually) as transactions are input into IFMS. Accumulating costs facilitates the determination of agency fees or charges for programmatic activities/services.

Once costs are recognized and accumulated into direct and support costs, the support costs can be distributed based on defined allocation formulae. Distributing costs consists of identifying direct and indirect (support) costs as incurred within cost objects and allocating the indirect costs to the appropriate targets. Some of the cost allocation and distribution processes, and the subsequent reporting, are performed through BAS. Other functions, such as the Superfund Layoff (SFLO) process, which assigns Superfund costs based on actual utilization, are performed in other subsystems then loaded into IFMS. A series of manually maintained crosswalk tables are also utilized to enable users to support this function.

Define Work Activities – Defining work activity includes providing current and historical cost information, including but not limited to the following:

Generation of the Statement of Net Cost and other required financial reports for external agencies

Cost analysis and reporting to respond to a potentially wide range of Congressional inquiries (including ad hoc analysis and reporting for new or unique inquiries and establishment of standard, specialized reporting for inquiries received on a periodic basis)

Cost data and analysis capability to support informed decision-making about programs, initiatives, or other defined organizational elements

- Linking of cost data to outcomes to support future financial plans and estimates

All of the functions identified above are handled by both IFMS and other systems that have been developed to supplement the data maintained within IFMS. IFMS is used to capture obligation and cost information for the level required by the Agency. Offices require cost information at a more granular level, including the allocation of office indirect costs. As a result, offices favor tracking and recording most cost/project information in auxiliary systems that use additional information to supplement data received from IFMS. The following paragraphs identify how several offices within EPA currently capture and report on cost/project management information.

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[3] EPA's current account code structure can be found in Chapter 3 of Directive 2520 (http://www.epa.gov/ocfo/modernization).

IFMS does not provide all of the capabilities needed by the users and has been supplemented by other systems to tie together program and financial information. Superfund users currently use the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Obligation and cost data is transferred from IFMS into CERCLIS. The financial data supplements the information maintained in the CERCLIS system such as additional resources and lower level information, which, in addition to a separate data warehouse application, enables managers to perform analysis and decision-making activities. In addition to CERCLIS, Superfund users utilize SCORPIOS (to ensure they do not exceed targets), BAS, and an auxiliary system developed to track "dollars for use" information.

EPA's WCF, which uses the EPA Site/Project field, has additional requirements, including the need to track cost and revenue by service. Users currently utilize a separate application that is not linked to IFMS to perform the service allocations, as well as to track financial data and generate reports. Because this system is not currently linked to IFMS, data must be manually input into this system. Currently, there are efforts underway to develop an additional database that will extract data from IFMS and generate the necessary reports.

The Pesticides Office also has additional cost management requirements, including detailed time tracking, which is performed by a custom application developed for this group. The Office of Pesticides Program Information Network (OPPIN) is an Oracle-based system that tracks information, including time arrived, in-process time, project management, new data categories, fee paid, and time from communication. It is also used to send communication to the fee payer. Cost information is obtained from IFMS and is supplemented by additional information entered by Pesticides personnel. The Pesticide office also uses the Time Accounting System to perform time reporting functions for registration activities.

2.1.6.1 Cost/Project Management Business Challenges

This section highlights a few of the Cost/Project Management business challenges.

EPA's cost structure is currently restricted by the capacity of IFMS. IFMS has a limited number of fields available and each field permits only a limited number of characters. More capacity in the accounting string would allow EPA to capture additional information.

Using the current system, it is difficult to track the full cost associated with a particular project. Several offices (such as Pesticides and Superfund) have developed systems solely for the purpose of tracking and assigning costs to projects or activities.

EPA must allocate payments to multiple accounts based either on the obligation (such as for grant purchases) or the invoice (such as for contract payments).

When the projects themselves change, changes to the agency's goals and performance measures are reflected in the accounting structure and in the project structure. For example, two projects may be combined or a project may be split between two new goals. The associated costs for that project need to reflect the change, although this currently presents difficulties for EPA.

EPA performs multi-year tracking and assignment of costs for big ticket outputs. As an example, work on the registration of pesticide new active ingredients can start and stop and ultimately span anywhere from one to three years or more depending upon the complexity and duration of the supporting studies that must be conducted and reviewed. Often reviews that are conducted will result in additional data being called in (thus additional studies to be done and reviewed). The end result is that it becomes difficult to come up with generic unit costs for activities; which in turn makes it difficult to predict the proper level of fees to be charged to support such actions (particularly when spending over a single fiscal year horizon occurs).

EPA links Full-Time Employee (FTE) and/or contract costs to specific outputs. With increased reliance on contractors to perform initial reviews with review and oversight by Federal employees, it is difficult to assign costs to specific registration actions. Being able to seamlessly link both contractor and Agency staff resources to specific outputs would be very helpful in planning for the use of both appropriated funds and user fees (through the development of reliable unit costs). As the pressure mounts to continue to do more with less (and link resources used to meeting performance measures), reliable data for planning purposes becomes more and more critical.

EPA allocates overhead/indirect costs/support costs to IAGs, programs such as Superfund, and to Agency-defined outputs. Automated allocations would eliminate or streamline the manual processes currently used to allocate these costs.

The use of manual crosswalks is labor intensive and can be time-consuming. Automating the crosswalking of obligations, expenses and disbursements under old strategic plans to the current strategic plan would a) eliminate weeks of manually crosswalking data; b) enable the production of timely reports; and c) enable EPA to meet requirements for output reporting under SFFAS 4.

2.1.7 Property Management

EPA's Property Management function supports activities associated with accounting, both physically and financially, for real and personal property owned by the government. The functional model presented in Figure 2.7 illustrates the Manage Assets function as it has been defined for EPA.

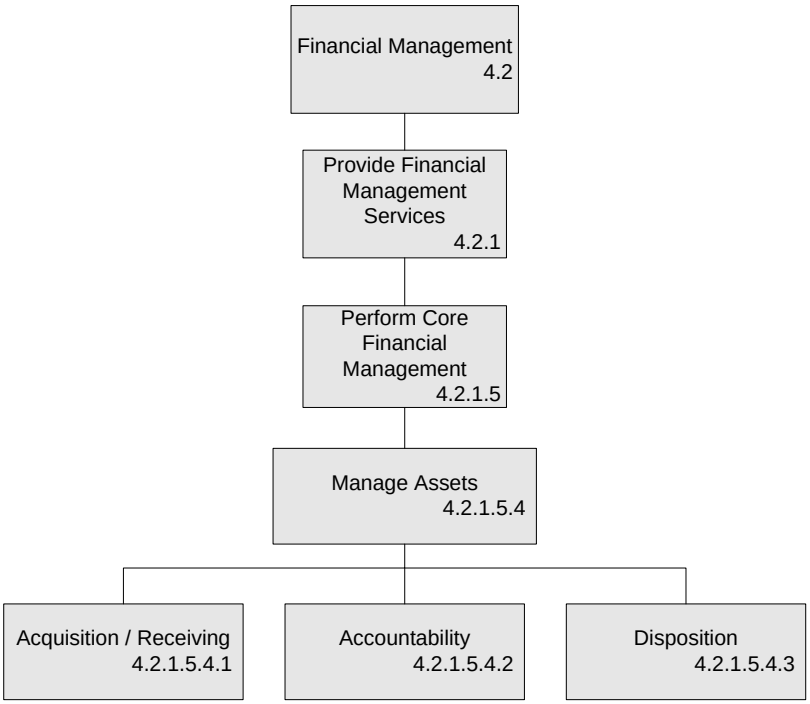

Figure 2.7. Business Reference Model: Property Management

This function includes acquisition and receiving of property, accounting for the asset physically and financially throughout its life cycle, and appropriate disposition of each asset. Throughout its life cycle, the property carries with it both administrative and financial management responsibilities in the proper administration of government resources. Descriptions of each activity and sub-activity are provided in the sections following the BRM.

2.1.7.1 Real Property

Management of real property, defined as land and building facilities, comprises planning, acquisition (including design and construction), operational management, and disposition, i.e., throughout its complete life cycle. Real property comprises approximately 75 percent of EPA assets, and various phases of the property life cycle carry with it both administrative and financial management activities and responsibilities in the proper administration of government resources. Physical accountability and management of real property relates to the Provide Facilities Services, Acquire and Manage Facilities function of EPA's BRM for property; associated financial management functions relate to the Manage Assets function of EPA's BRM, the latter of which is illustrated in Figure 2.7.

The **Manage Assets** administrative function is currently a centralized process in the Architecture, Engineering and Asset Management Branch. SLATE, a facilities life cycle management system, is used by EPA to facilitate this function.

Master Planning is conducted within EPA headquarters with the purpose of meeting EPA facilities requirements, in particular with respect to space utilization and needs; architecture, engineering and planning guidelines; and safety, health and environmental issues. Budget planning is conducted in concert with facility master planning for both repair and improvement and new construction. Plans are reviewed by senior management to aid in development of a five-year budget outlook and updated every five years to assimilate changes in program requirements. EPA both leases properties, typically from General Services Administration (GSA), and owns real property.

An important consideration in real property is the multi-year length of the planning and acquisition phases. Programs or projects can be multi-year, for which costs are accumulated and not until project completion is a completion date, or "in-service" date reached, which is a trigger for accounting changes. Accumulated costs, which may include outstanding payments, are totaled for an initial acquisition cost for depreciation and related financial purposes. Similarly, capital projects that may extend the life of an asset can have a financial impact in that the asset valuation is increased or betterments may be depreciated separately. Deferred maintenance, created by mission prioritization, funding limitations, and property conditions is an issue for any government entity that owns real property and is considered a financial liability' therefore, it must be recorded on the Agency's books. Similarly, environmental liabilities and valuations based on historically significant, or heritage, property are also considerations that need to be made in management, both physically and financially, of real property. Assumptions are based on current known requirements, but changes are likely inevitable with the issuance of Executive Order 13327 that established the Federal Real Property Council. The Council is expected to dictate reporting and management requirements that will likely affect reporting requirements, in particular, for real estate, and a financial system may be expected to provide such capabilities that are yet undefined.

The financial function of Manage Assets is also centralized and managed in the Finance Office. Financial information is shared with the financial management system and periodic coordination currently occurs with the OCFO about project completion dates, i.e., facilities placed in service and other information to ensure accuracy of site and project associated costs data and total acquisition cost for depreciation. These activities should be migrated from their current state to further system integration to ensure data is electronically transferred to and reconciled with the core financial system in the financial accounting activities regarding real property.

2.1.7.2 Personal Property

Personal property is defined as any Property, Plant, and Equipment (PP&E) to exclude real property. Policy thresholds exist to define levels of accountability and fiduciary responsibilities within the Agency. The accountability threshold for assets is $5,000, i.e., control must be maintained for any asset from

acquisition through disposition with an asset value (default of acquisition value) equal to or greater than $5,000. Accountability, or control, must also be maintained for any asset defined as "sensitive" by EPA regardless of value; also, accountable property requires notification be given to property managers prior to acquisition. In addition, personal property is capitalized for values equal to or greater than $25,000, for which the associated accounting and financial activities are conducted.

The Manage Assets administrative function is currently a decentralized process involving Property Management Officers and Property Accountable Officers (PAO) in designated accountable areas within each region and Property Custodial Officers (PCO) throughout the agency. Each PAO is designated in writing and maintains the formal personal property account for a designated accountable area, as well as provides assistance to PCOs, particularly in acquisition, disposition, and as needed. PCOs are typically program managers and are responsible for a portion of the asset records and for control of assets within a designated area of purview, either organizationally or geographically, throughout the asset's life cycle. A training program is in place for custodial officers and is currently being updated, with supplemental online training being developed. A hotline is also available for staff to get answers to questions regarding asset management. Additional support is available at the headquarters level, where policy, procedures, and standardization are administered.

Property management system support is currently provided by Fixed Asset Subsystem (FAS), a module within IFMS. FAS has been insufficient as a personal property management tool, becoming more so with recent advances in technology and growing federal requirements in property management practices and systems. Regional property managers typically use additional tools, but headquarters is currently in the process of implementing an enhanced tool for use at the regional level, which was developed and tested in Research Triangle Park and has been termed PMD. Of great importance with respect to the FinRS plan and requirements development is the assumption that PMD will be placed in service throughout EPA and provide adequate functionality in the daily operating and transactions of managing the agency's personal property. However, requirements for personal property management are being submitted herein for future consideration of additional function or replacement, in part or full, of PMD's use at the time of implementation of the replacement financial management system. Furthermore, requirements submitted herein assume PMD will perform and function as planned at time of publication of this document.

Financial functions of Manage Assets are more centralized, with a limited number of personnel authorized to add, modify, and delete property attributes or records within IFMS, especially any changes that have a financial impact. The system security administration provides for management of access levels for those so designated.

The following paragraphs outline the Manage Assets process, specifically how the Acquisition/Receiving, Accountability, and Disposition Activities are handled within EPA.

Acquisition/Receiving includes planning, budgeting, acquisition, and receiving of personal property, essentially all activities to the point at which EPA officially assumes control and possession of the asset. This function is primarily accomplished by program managers with authority provided by and in support of specific Agency programs. Planning typically can be summarized by the identification of a need, followed by submission of a request to the property office for a search in Agency excess and, if no reutilization opportunity is available, the item is purchased. Purchases can be completed by a Bankcard, although less so for accountable property because of dollar value limitations, and purchase order. Acquisitions may also be made through contracts. Notification is required to be provided to the property management officer prior to acquisition of sensitive property. IFMS creates a notification flag for personal property based on the budget object code. Purchase of property with Superfund monies are conducted through standard procurement requests and purchase orders, but are flagged on the

Purchase Order (PO) and subsequently flagged during receiving of property in the core financial system as such. Superfund property is accounted for the same as other property except that disposition can only occur through GSA. Contract purchases, generally of greater dollar value, or made in a separate system, ICMS, which does not interface with IFMS. The obligation is made, and receipt of property is made by warehouse locations in each region approximately 90 percent of the time, and otherwise by direct delivery to the program manager or person making the acquisition request.

Anyone can currently receive property, and such direct delivery opens risk of appropriate accountability, sufficient system entry, and required data being captured. Annual inventories identify the property. When property is received at warehouses, property managers verify asset information is accurate within IFMS, tag the property, and forward to the appropriate program office. For capital purchases, finance offices will complete accounting strip and accountable data fields.

Accountability includes the activity of maintaining an account (record) for personal property, providing an audit trail for property transactions from receipt through final disposition. This process is congruent with the monitoring and control function. It ensures that organizational processes related to the life cycle management of property support organizational objectives and are compliant with applicable standards, policies, regulations, and contractual requirements. The PAO conducts inventories of property as required and ensures reconciliation is completed. Processes such as transfers between regions are also coordinated through PAOs. Not all data required by regulation is maintained in the current property records, a limitation of IFMS itself. This policy necessitates disparate processes and additional reporting to headquarters. An example is deferred maintenance, for which data is collected through a data call initiated by headquarters.

Disposition includes all activities related to the management and actions taken to physically transfer assets from one's accountability. The PCO identifies an asset that is excess. The PCO then notifies the PAO, and the PAO and utilization office assume responsibility for identifying potential reutilization within the region or Agency, donation opportunities, and Green programs allowing for disposition, generally in that order of priority or by other means of disposition as appropriate for the type and condition of property. The property may be transferred to GSA Excess for reutilization. Abandonment or destruction may be most appropriate or the only option after other options have been exhausted. Sales are only handled by GSA after being submitted as excess property and considered surplus property by GSA. Any proceeds received are returned to the General Treasury.

Acquisition and receiving functions should allow immediate tracking of information for assets, and the core financial system is currently the primary source of data for the property system. To the maximum extent possible, creation of a skeletal record, linkages and electronic transfer of related data, and notification to property managers of acquisition activities will greatly streamline property management processes. Personal property management requires more transfer of data between the core financial and property management system as compared to real property, both in quantity and frequency, due to its more transactional nature. For example, daily operations may involve the simple transfer of an item from one accountable area to another. The asset's value does not change, but assignment to a different accountable area does change sub-ledger totals for the involved accountable areas.

Current one-way transfer from the core financial system to the property management presents challenges as currently used. Frequency and volume of acquisition, transfer, and disposition of property should not impact the ability to reconcile between financial and property records. Currently, SYMBOL is used to inventory personal property in a specific location (building or room), and is fed into the core financial system, but reconciliation with inventory—overages and missing—property must be made first with the property system when the inventory is complete and then with the financial data as adjustments are made. A list report of discrepancies and ability to search for items in the property management

system is vitally important. Interfaces with financial and property data should always use the unique identifier, a key data component when relating data to a specific asset, including when viewing or searching journal entries.

Another area of concern for EPA property managers is that of contractor-held property. Policy and practice is currently unclear as to who and what system should track these assets. Tracking is ideally conducted by contractors, external to EPA, but items are still considered financial assets of EPA.

Capital leased property is another category of property that currently burdens personnel with manual entry requirements, for which lease payments and liabilities should be automated and tied to specific asset records. Various situations call for need to view both financial and asset characteristics in one view, whether on reports or online. Flexibility in viewing and reporting data, electronic transfer, or availability of data and system integration would greatly enhance capabilities, streamline processes, enable requirements to be met, and provide value in the area of property management.

2.1.7.3 Property Management Business Challenges

This section highlights a few of the Property Management business challenges.

Although EPA has developed a process for marking property for excess within the current system, this process is not efficient and makes it difficult for property officials to identify excess property available for reutilization within the Agency. EPA needs a more efficient method of promoting excess property reuse within the Agency so that others can quickly identify available excess property, request it, and place it into service under their own custodial area. It would also be helpful to have a stronger integration between EPA's excess property program and GSA's.

The current system does not have any standardized property reports and has limited ad hoc reporting capabilities through the FDW. Property officials need to have access to a range of standard property reports, including overages and shortages, as well as to have access to a flexible property reporting tool.

Users of the system should be able to easily transfer property electronically between accountable areas. In the current system, a property transfer between accountable areas requires a user to maintain two passwords: one for receipt and one for acceptance. This is often confusing for users and delays electronic acceptance of transfers by the recipient within the system.

Property officials are often not notified about direct delivery and purchase card items, which makes it difficult for property officials to identify these items for timely capture into the system. The business challenge is to better integrate the link between procurement and property so that property officials can anticipate new items for entry into the system.

It is currently difficult to add a betterment to a property record. Users often have difficulty with adding the cost of a betterment to an item, which leads to reconciliation issues related to capturing the real value of the asset, along with its depreciation schedule, decal assignments, etc.

Maintaining accurate asset value and depreciation for personal property in the financial records is currently a challenge for EPA. Because property is managed in a separate system that doesn't transfer data to the financial system, the users must work with two systems to change current asset values. In addition, when an asset is moved from one cost center to another (or removed from service, destroyed, etc.), its status would be changed in the property management system, but would require double entry in the financial system.

2.1.8 Working Capital Fund

In FY 1997, the Agency established a pilot WCF through appropriation language and in conjunction with the authority of the GMRA of 1994. The WCF is designed to provide administrative services to

customers on a fee-for-services basis. By FY 1998, EPA's appropriation language established a permanent WCF as agreed to by EPA and OMB. It currently provides services to all EPA offices in two business lines: the Agency's computer and telecommunication services and Agency postage.

EPA's WCF is supported by the WCF staff, under the direction of a Staff Director in the OFM. These personnel are responsible for coordinating the Agency-wide planning processes for the WCF, developing and monitoring implementation of Agency policy as it relates to the Fund, formulating the Fund's budget, and ensuring the fiscal integrity of the WCF. Personnel in OTOP, which reports to the Office of Environmental Information (OEI), provide the WCF services for the Data Processing activity. Fund services are currently provided by two activities. The IT service is supported by personnel in OTOP. Postage services are provided by the Office of Administrative Services within OARM. Other activities such as performing common administrative services, may be added from time to time.

Processes that support the WCF can be viewed from both a service provider and a customer perspective. Before the FY begins, Activities present their cost budgets and workload projections to the WCF Board, which sets rates for services, which are component part of an Activity, in the Fund. Also during the summer before the FY begins, OCFO requests Apportionment Authority from OMB for the reimbursable funds used in the WCF. During the operating year the budget (allowance authority) is requested from the OCFO. When the authority is granted, the funds are reprogrammed by manually moving the funding from the reserve funds to the WCF allowance in IFMS. OTOP subsequently allocates the funds to each division for obligation of the funds within WCF.

The customer's WCF process begins prior to the beginning of the FY when WCF and the offices engage in Capacity Planning and Programmatic Planning. Workload projections developed at that time become a component of rate-setting. They also create a Service Agreement to establish the customer's initial order. Once the workload has been agreed upon for rate setting, the planning phase is completed and the operations phase can begin. The initial Customer Order is captured in OTOP's Workload Billing System (WBS) where the capacity units are translated into dollars. Once the customer has registered for the service in the appropriate Registration system (e.g., TSRS, eProducts, etc.) and committed the funds based upon the Service Agreement, OTOP receives and reviews the service order and signs off to obligate the funds. OCFO then records the obligation in IFMS. It is those obligations that the Office of Budget inspects to determine whether reimbursable allowance can be issued from reserve to the Activities' active accounts.

The RTP Finance Center uses the Web-based Ordering System (WEBOS) to record the obligation of the customers funding. This information is then transmitted to IFMS through the nightly cycle. Once the information is validated in IFMS, the RTP Finance Center loads an Inspector General (IG) transaction into IFMS and also updates any changes to the customer's workload in WEBOS. The customers add additional monies and workload throughout the year and on average submit 3-4 modifications to their Service Agreements.

Once the services have been delivered, the Project Managers report on consumption and the Workload Data is collected. The data is sent to the Business Office in OTOP. The data is then matched against the approved rates and is translated into dollars at the Service Agreement level in WBS. A file is subsequently sent to IFMS, allowing RTP's finance office to accept and record the drawdown against the service agreement. The RTP Finance Center validates the billings generated by the customers and the WBS systems and is responsible for reconciling variances between the WBS and IFMS. Once the variances are identified the RTP Finance Center takes the appropriate action to reconcile the variations. This involves an adjustment to either the WBS or IFMS.

Information is also sent to OTOP's eReports system, as well as other OTOP reports located at its Web site. IFMS data moves to the data warehouse so that obligations and drawdowns by appropriation and

Service Agreement data can be viewed and reported on. At the end of the Budget FY, the Service Agreements are reconciled and any monies owed are added to the Service Agreement. If there are monies not expended then the customer money is deobligated and given back to the activity via IFMS. The WEBOS system is also adjusted to reflect the correct workload for the Budget Fiscal Year (BFY).

In addition to IFMS, OTOP has developed several systems to support the WCF functions. The following describes the systems utilized by WCF:

WBS – provides billing for technology and postage services for the entire Agency. The system receives workload records each month and matches these records against customer service agreements to produce a billing statement.

WEBOS – used to register service agreements. Also used to pull forward commitment information from IFMS into WeBoS. WBS interfaces with WEBOS.

Hyperion (Pillar) – WCF budget formulation tool

Hyperion (Analyzer) – used to track funding at lower levels as well as produce reports based on data in Pillar

eReports – reporting tool used to report on data in WBS

eProducts – customer registration system for project-level activity within services currently in use for development and desktop services

Time Sharing Security Management Systems (TSSMS) – customer registration system for application-related information for mainframe and UNIX

Telecommunications Service requests (TSRs) – Telecommunication Service customer registration system

- **Additional registration systems**.

In addition to the systems mentioned above, the Financial Data Warehouse is also utilized for reporting purposes. For budget formulation, WCF primarily utilizes PILLAR. WCF formulation is not reflected in BAS, although targets for customer funding appear as a Budget Object Class tracked in BAS. BAS is also utilized to obtain reimbursable FTE information. Users also often create separate spreadsheets and databases for Profit and Loss (P&L) analysis, commitment tracking, and allowance management tracking.

Figure 2.8 illustrates each of the systems used by WCF and how they are interrelated:

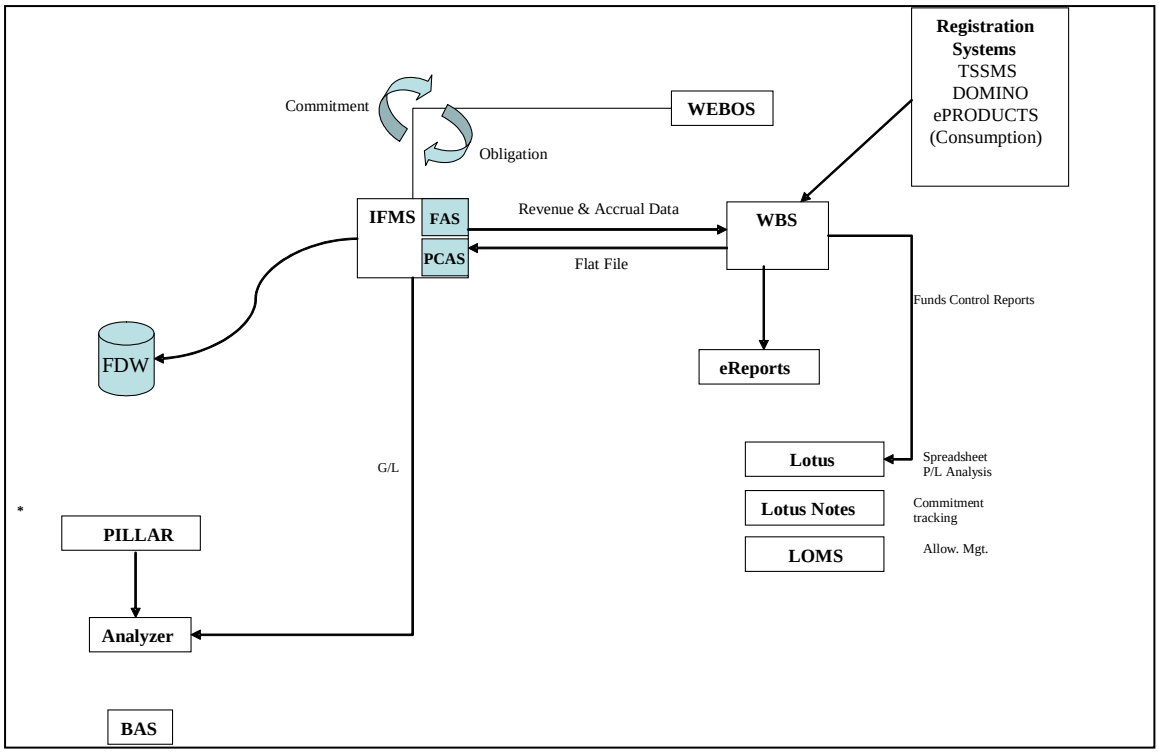

Figure 2.8. WCF Systems

2.1.8.1 Working Capital Fund Business Challenges

This section highlights a few of the WCF business challenges.

WCF requires cost assignment and cost management information that is not easily provided by the current system. As described above, the WCF has created a number of applications using different platforms to meet these needs. Efficiencies could be obtained if these needs were met using a single, integrated system.

Incorporating all of the different accounting requirements and needs of the WCF into the limited account structure in the current system (45 characters in six fields in the current accounting string) is difficult. WCF uses some existing fields for different purposes than the rest of EPA, which means that WCF then cannot capture the data the field normally contains.

Both WCF and customers need to be able to access and analyze detailed information from the system. WCF information needs to be translated back to customers (who are using the appropriation model) in ways that they understand.

Funding is captured at a summary level which makes meeting the requirements set forth for IT Accounting and determining the lowest level of granularity for reporting purposes difficult.

- While WCF's funding is no-year funding, the customer's money can be annual or no-year requiring that they must close their books at the end of each year. In an effort to facilitate the process for their customers, WCF also closes its books at the end of each year. This process can be labor and time intensive, however, and WCF would like to consider alternative year-end processes (e.g. creating multi-year serviceable agreements).

2.2 Current Financial Management Systems Environment

This section describes the automated applications and infrastructure that are used to create, store, manage, or manipulate data to support EPA's financial management functions.

2.2.1 Current Financial Management Systems

The FSMP addresses 18 financial management applications. A brief description of these applications, and the information exchanged via interfaces between the systems, is provided in Table 2.1 below.

Table 2.1. Description of Applications Supporting EPA's Financial Management Functions

Application Name	Brief Description	Interface Information
Asbestos Receivable Tracking System (ARTS)	ARTS is a custom-built microcomputer application that records and tracks repayments on EPA asbestos removal loans.	▪ **ARTS to IFMS.** ARTS sends Receivable Account Bill and Loan Collections/Receipts information to IFMS on an as-needed basis.
Bankcard Payment System	The Bankcard Payment System is a custom-built application that records all EPA purchase card transactions and allocates transactions for processing into IFMS	▪ **Bankcard Payment System to IFMS**. The Bankcard Payment System provides Commitment, Obligation and Payment transaction information to IFMS in a daily batch. ▪ **Bankcard Payment System to/from FDW**. A copy of the bankcard transactional data is copied into the FDW
Budget Automation System (BAS)	BAS is a custom-built server application that integrates the Agency's budget planning, execution, and reporting, and tracks progress towards meeting the requirements of the GPRA.	▪ **BAS to IFMS**. BAS sends Available Funding, Account Structure, Transaction Code, Budget, Appropriation, Organization, and Program information to the BUDPREP utility on an as-needed basis. BUDPREP provides an automated interface to load the information into IFMS. ▪ **BAS to Cost Allocation**. BAS provides the percent distribution of resources across Program Results Codes based on methodologies provided by the offices that own distribution accounts. ▪ **BAS from OMIS/Integrated Resource Management System (IRMS)**. BAS receives Budget information from OMIS/IRMS on an as-needed basis through an import function to load data.
Cost Allocation	Cost Allocation is a COTS-based server application that distributes obligation and expenditure data from distribution accounts to the benefiting program results codes.	▪ **Cost Allocation to/from IFMS**. Cost Allocation receives obligations and expenditure transactions in IFMS that are recorded with a cost distribution account. Cost Allocation distributes those transactions to Program Results Codes and creates document that are loaded into IFMS.

Application Name	Brief Description	Interface Information
Contract Payment System (CPS)	CPS is a custom-built mainframe application that processes payments for EPA contracts and supports an electronic interface to the Department of the Treasury. The Web Invoice System (WIS) and EASY custom-built server applications provide user-friendly access to CPS for electronic invoicing and invoice approval.	▪ **CPS to/from IFMS.** CPS sends Contract Obligation and Contract Payment information to IFMS via a daily batch. CPS reads Commitment information from IFMS real time. ▪ **CPS to FDW**. A copy of CPS data is copied to the FDW on a daily basis.
Financial Data Warehouse (FDW)	FDW is a custom-built server application which collects data from financial management systems for reporting purposes.	▪ **FDW to BAS.** Budget and Payment Schedule/Info to BAS is received from FDW. ▪ **IFMS to FDW**. FDW receives summary and detailed financial information from IFMS four times a day.
Fellowship Payment System (FPS)	FPS is a custom-built server application that records payment schedules for fellowship recipients and prepares stipend and tuition payments to students and universities.	▪ **FPS to IFMS.** FPS sends Fellowship Payment data to IFMS on an as-needed basis.
Grant Payment Allocation System (GPAS)	GPAS is a custom-built web-based application that automates the processing of both ASAP and manual grant payments. In addition it provides grant payment workload allocation functionality and performs account distribution for the payments.	▪ **GPAS to IFMS.** GPAS sends ASAP expense transactions and manual grant payment transactions to IFMS on an as-needed basis.
Inter-Agency Document Online Tracking System (IDOTS)	IDOTS is a custom-built application that tracks payments for interagency agreements.	▪ **IDOTS to/from IFMS.** IDOTS sends Obligation and Payment redistribution transactions. IDOTS reads Obligation and Commitment information from IFMS real time.
Integrated Financial Management System (IFMS)	IFMS is the EPA's key core financial application. It is a COTS-based mainframe application that supports budget execution and accounting functions, such as updating all ledgers and tables as transactions are processed; and generates source data for preparing financial statements and budgetary reports.	

Application Name	Brief Description	Interface Information
ORD Management Information System (OMIS)	OMIS is a custom-built server application that consists of several components: ▪ OMIS/IRMS - provides for the integration of research planning, budget formulation, budget execution, and strategic plan management, to meet needs not fulfilled by existing OCFO systems (e.g., IFMS, BAS). It also tracks spending including commitments, obligations, and payments at a detailed level. ▪ OMIS/LIPS – is being retired and once tracked spending including commitments, obligations, and payments at a detailed level. This functionality is now part of the IRMS module.	▪ **OMIS/IRMS to/from IFMS.** IRMS receives summary level budgetary as well as commitment, obligation, and payment data from IFMS via a nightly batch job. OMIS/IRMS also receives DCN level, Commitment, Obligation, Payment Schedule/Info, Account Structure, Contract, and Travel Voucher information from MARS in a daily batch. OMIS/IRMS sends Commitment information to IFMS real-time using IBM's Websphere EAI toolset. ▪ **OMIS/LIPS to/from IFMS.** LIP no longer sends information to IFMS. At present OMIS/LIP receives DCN, Commitment, Obligation, Payment Schedule/Info, Account Structure, Contract, and Travel Voucher information from IFMS on a daily batch for FYs prior to 2004. This functionality will be retired and transferred to IRMS at the end of FY 2005.
Office of Pesticides Program Information Network (OPPIN)	OPPIN is a custom-built server application for detailed time tracking such as time arrived, in-process time, project management, new data categories, fee paid, and time from communication. It sends communications to the fee payer.	▪ **OPPIN from IFMS.** OPPIN receives Purchase Order information from IFMS on a monthly basis.
Payroll Labor Distribution (Payroll LD)	A module of the PPL component (PeopleSoft based platform) which performs labor distribution functions.	▪ **PPL to IFMS**. PPL transmits summary files of payroll activity (dollars and hours) to IFMS each pay period. The files do not contain payee names or specific payee information.
Property Inventory	Property Inventory is comprises the SYMBOL hardware and Data Logger software. SYMBOL scans EPA barcodes/decals to confirm the existence of EPA personal property. This data is loaded into IFMS via the Data Logger software.	▪ **Property Inventory to IFMS**. Property Inventory sends Equipment information (e.g., physical inventory results and asset classification) to IFMS on a yearly basis. This application uses barcode scanners (i.e., Symbol brand) and the Data Logger software to interface with IFMS.
Property Management Database (PMD)	PMD is a COTS-based web-based server application that supports day-to-day property management activities, such as property assignments, transfers, and disposals. PMD manages personal property accountability and resource reutilization within EPA. PMD generates electronic forms to support specific transactions, as well as incorporates workflow notification mechanisms.	▪ **PMD from IFMS**. PMD receives Equipment and Physical Asset Accounting information from IFMS on a weekly basis.
Strategic Lease and Asset Tracking Enterprise (SLATE)	SLATE is a COTS-based web-based server application that manages real property.	▪ There are no automated interfaces.

Application Name	Brief Description	Interface Information
Small Purchase Information Tracking System (SPITS)	SPITS is a custom-built server application that supports the processing of simplified acquisition payments.	▪ **SPITS to/from IFMS.** SPITS sends Payment information to IFMS on a daily basis. SPITS reads Obligation and Commitment information from IFMS real time on an as needed basis.
Workload and Billing System (WBS)	WBS is a custom-built server application that provides billing for technology and postage services for the entire Agency.	▪ **WBS to IFMS.** WBS sends Transaction Code, Earned Revenue, Appropriation, Organization, Program, and Customer information to IFMS on a monthly basis.

Additional detail regarding 16 of the 18 current financial management applications along with their strengths and weaknesses is provided in Appendix B. Information on the volume of key transactions and number of users for 12 of the 18 above applications can be found in Appendix D. There are other home-grown databases and spreadsheets that provide some degree of financial management support. These applications typically pull information from IFMS to support very specific functions (e.g., user friendly display) not well supported by the financial management applications. These applications, usually referred to as "cuff-systems" within the Finance community, include the Administrator's Office (AO) Finance, Cizer.NET Reporting Suite, Finance Central, WCF's Web-Based Ordering System, CLP Web Invoicing System, Pillar, Integrated Case Information System, e-Products Database, e-Reports, and Information Technology Governance Support System (ITGSS).

Figure 2.9 shows the current financial management applications within the scope of FSMP and the major automated interfaces that exist among them.

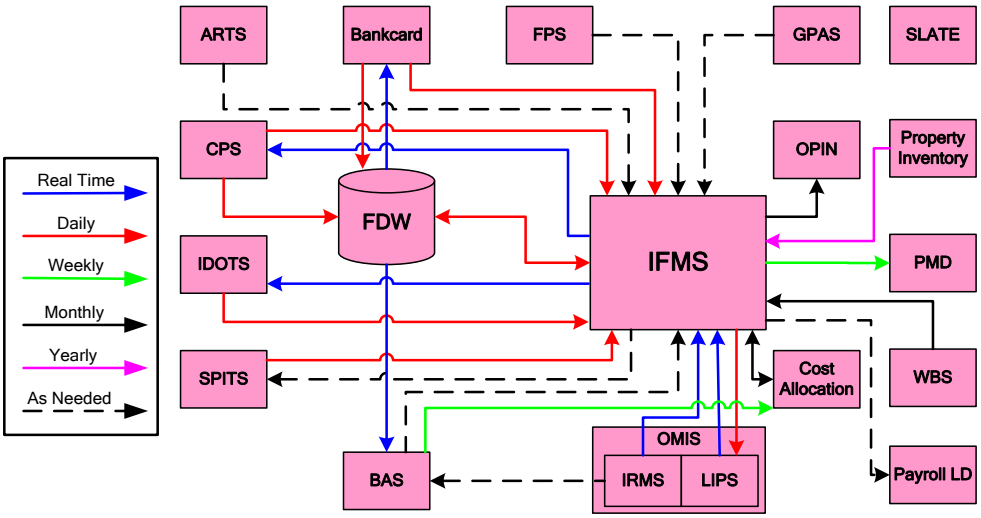

Figure 2.9. Interfaces Among Current FSMP Financial Management Applications

Each of the applications can be related to functionality addressed in EPA's BRM. Table 2.2 shows the relationships between the financial management applications addressed by the FSMP and EPA's BRM version 3.1. Please refer to Appendix C for the complete BRM.

Table 2.2. Current Applications Mapped to EPA's Financial Management BRM

FEA BRM Business Area EPA BRM Sub-function	ARTS	Bankcard Payment System	BAS	CPS	Cost Allocation	FDW	FPS	GPAS	IDOTS	IFMS	IRMS	OPPIN	Property Inventory	PMD	Payroll Labor Distribution	SLATE	SPITS	WBS
Management of Government Resource																		
Financial Management																		
Perform Core Financial Management (4.2.1.5)										●	●							
Manage Receipts (4.2.1.4)	●									●		●						●
Manage Payments (4.2.1.3)		●		●			●	●	●								●	
Manage Costs (4.2.2.1)					●					●		●			●			●
Manage Assets (4.2.1.5.4)										●			●	●		●		
Produce Annual Performance Report (4.2.2.2)																		
Reporting and Information	●			●		●	●	●	●	●	●	●					●	●
Support Delivery of Services																		
Planning and Resource Allocation																		
Budget Formulation (3.8.1)			●							●	●							
Manage Strategic Plan (3.8.5)			●								●							
Budget Execution (3.8.6)			●							●	●							

2.2.2 Other Interfacing Applications

There are 11 additional major applications or entities that exchange information with the current financial management applications addressed by the FSMP. Table 2.3 below provides a brief description and related interface information for these interfacing systems.

Table 2.3. Description of Other Interfacing Applications

Application Name	Brief Description	Interface Information
Administrative Data Warehouse (ADW)	ADW is in development, and currently includes the FDW and the Administrative Data Mart (ADAM). FDW is being transformed to a series of ODSs for HR, contracts, financial and other administrative functions. The financial portion of the FDW is under the scope of FSMP, while the other components of ADW are considered interfaces.	▪ The ADAM of ADW receives summary and detailed financial information from IFMS four times a day.

Application Name	Brief Description	Interface Information
JP Morgan Chase/Bank One	JP Morgan Chase/Bank One's systems provide credit card transaction information to EPA.	▪ Sends Credit Card transaction information to the Bankcard Payment System on a daily basis.
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	CERCLIS synchronizes IFMS financial information with CERCLIS program information. Obligation and cost data is transferred from IFMS into CERCLIS. This data supplements the information maintained in CERCLIS, such as additional resources and lower level information, which enables Superfund managers to perform analysis and decision-making activities.	▪ Receives Program, Commitment, Obligation, Payment Schedule, DCN, Travel Voucher, Purchase Order, Contract, and Account Structure information[4] from IFMS on a daily batch.
Grant Information Control System (GICS)	GICS captures grants information. GICS is scheduled to be subsumed by IGMS.	▪ Sends Transaction Code, Appropriation, Organization, Program, Obligation, Commitment, and Vendor information to IFMS on a nightly batch. Sends Grant information to FDW on a daily batch. GICS is to be subsumed by IGMS.
Integrated Contract Management System/Small Purchase Electronic Data Interchange System (ICMS/SPEDI)	ICMS/SPEDI captures contract information.	▪ Sends Purchase Order information to SPITS real time. SPEDI transmits obligation transactions to IFMS via the nightly cycle**.**
Integrated Grants Management System (IGMS)	IGMS captures grants information.	▪ Receives Commitment, DCN, and Account Structure information from IFMS on a nightly batch**.** Sends Grant information to FDW on a daily batch.
Other Program Resource Management System (RMS)	Other program RMS represent several home-grown applications used to capture budget planning information for the various EPA programs.	▪ Receives budget information from BAS on an as-needed basis.
Payroll Personnel and Labor (PPL)	PPL processes personnel payroll and time and attendance information for the Agency.	▪ Receives financial data from IFMS on an as-needed basis and sends payment schedule/info (payroll) information to IFMS on a biweekly batch. Sends payment schedule/info (payroll) information to IFMS on a daily basis.
Superfund Cost Recovery Package and Image On-Line System (SCORPIOS)	SCORPIOS assists the EPA in the recovery of Superfund site-specific clean-up costs by efficiently and effectively summarizing the dollars EPA has spent cleaning up a Superfund site.	▪ Reads financial data from FDW real-time
Travel Manager (TM)	TM is COTS software that automates the processing of employee travel.	▪ Sends obligation and payment transactions to IFMS via the nightly cycle.

[4] *Information Class and Subclass definitions can be found in Appendix E.*

Application Name	Brief Description	Interface Information
Treasury Disbursement Office	The Treasury Disbursement Office is a Federal entity that receives financial information from Federal agencies for disbursement of funds.	▪ Receives GL Account, Appropriation, and Customer information from IFMS on a daily batch, and receives Payment Schedule information from CPS on a daily batch.

Figure 2.10 displays the automated interfaces that exist between the financial management applications within the scope of the FSMP (depicted within the circle) and the other interfacing applications listed in Table 2.3.

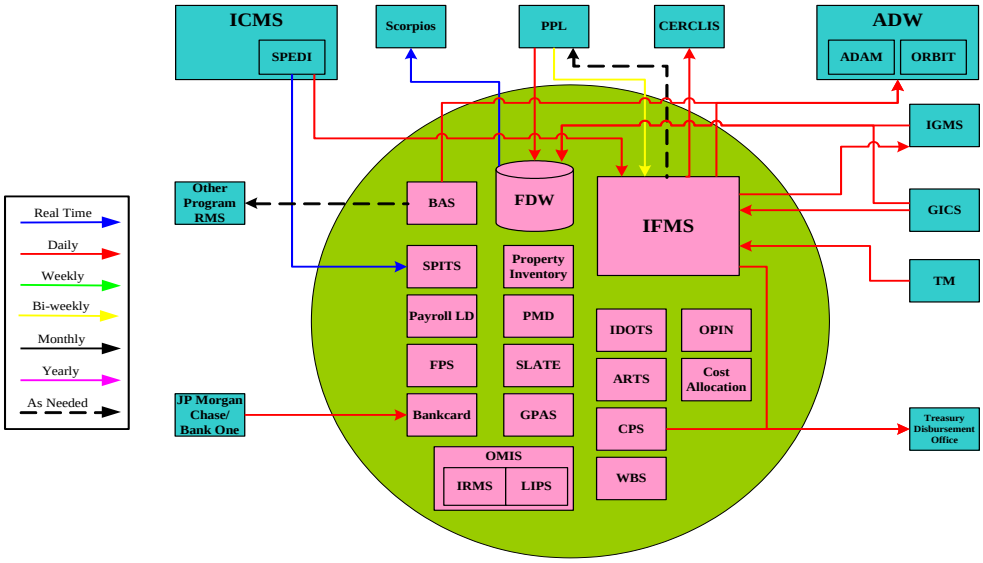

Figure 2.10. Interfaces between Financial Management Applications and Other Applications

2.2.3 Technical Infrastructure

Figure 2.11 provides a logical view of the infrastructure showing the connections between EPA's primary data processing centers and several of the major servers supporting EPA's current financial management applications.

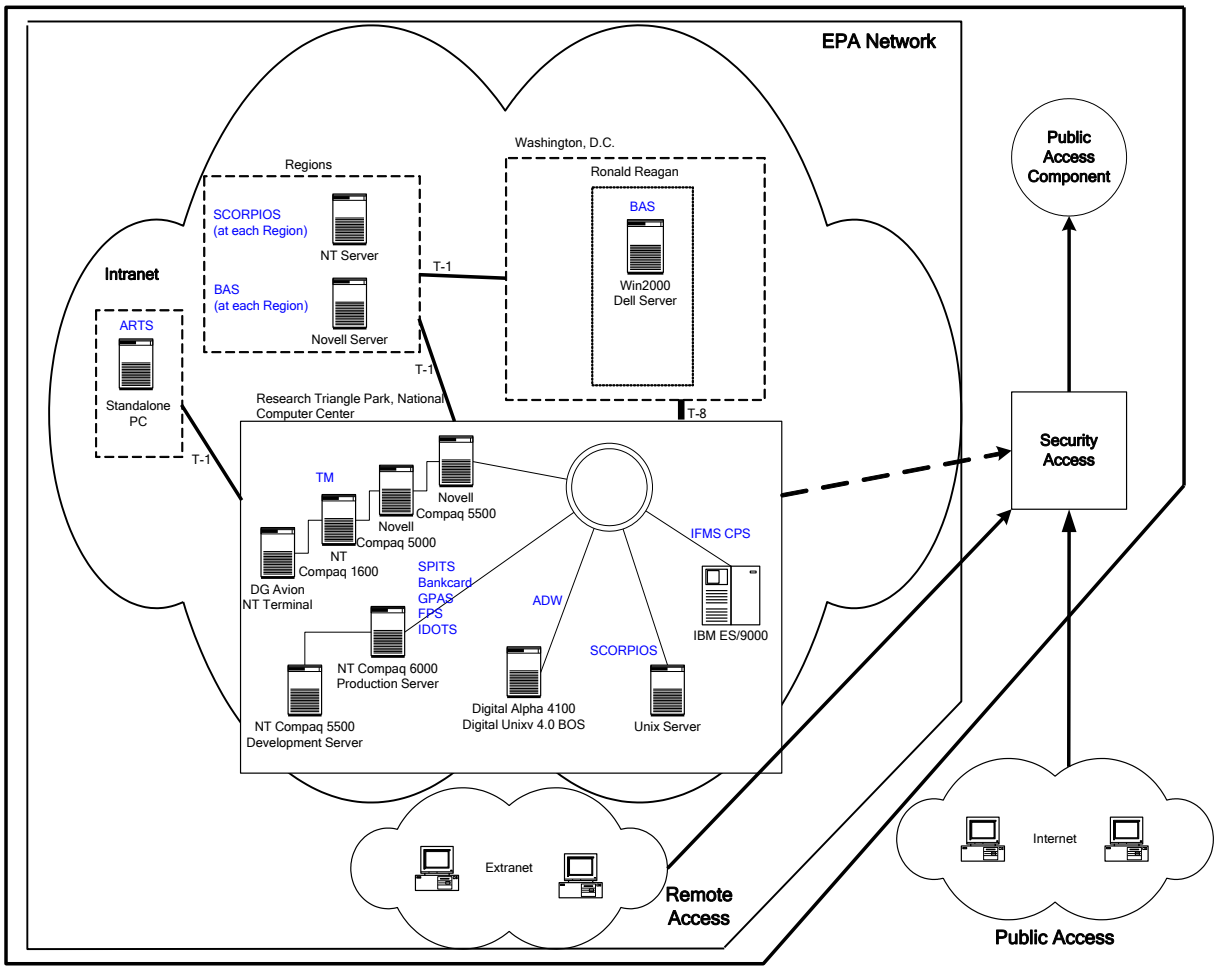

Figure 2.11. Connections Between Primary Data Processing Centers and Major Servers

An analysis of the technologies supporting the financial management applications supported by the FSMP yields a variety of databases and software engineering products displayed in Table 2.4 below.

Table 2.4. Databases, Operating Systems, and Software Engineering Products by Financial Management Application

Application		ARTS	Bankcard Payment System	BAS	CPS	Cost Allocation	FDW	FPS	GPAS	IDOTS	IFMS	IRMS	OPPIN	Property Inventory	PMD	Payroll LD	SLATE	SPITS	WBS
Databases	ADABAS v6.1.3										●								
	ADABAS v6.2.1				●														
	FoxPro 6.0																		●
	MS Access	●																	

Application		ARTS	Bankcard Payment System	BAS	CPS	Cost Allocation	FDW	FPS	GPAS	IDOTS	IFMS	IRMS	OPPIN	Property Inventory	PMD	Payroll LD	SLATE	SPITS	WBS
	Oracle 8		●	●			●	●	●	●						●	●	●	
	Oracle 9											●	●		●				
	Oracle 10												●						
Operating Systems	Novell 4.11			●												●			●
	NT 4.0	●			●[5]			●	●	●								●	
	OS-390 v2.5				●						●								
	Unix 264												●						
	Unix 4.0						●												
	Windows 2004														●				
Software Engineering Products	Acrobat 4.05										●								●
	COBOL										●								
	COTS										●			●			●		
	Delphi 3.0																		●
	Cold Fusion								●						●				
	Java Script																		
	Natural				●						●								
	Oracle Forms							●		●		●						●	
	PeoplePlus															●			
	PowerBuilder			●									●						
	PL/SQL		●	●						●			●			●			
	Source Safe																		●
	Visual Basic	●		●	●[6]														

Because EPA is using a variety of databases, operating systems, and software engineering products to support its financial applications, the maintenance of such applications is expensive and requires a diverse technology skill set to be maintained at EPA.

2.2.4 Security Assessments

The EPA has conducted periodic and as-needed risk assessments of its financial management applications in compliance with the Agency's Information Security Manual. Risk assessments have effectively addressed data, application, and technology layer security vulnerabilities.

The Agency's Information Security Manual is currently under revision for compliance to FIPS PUB 199, NIST 800-53, and NIST 800-60. New risk assessments will be conducted in accordance with the new federal guidance (i.e., FIPS PUB 199, NIST 800-53). OEI has developed a tool to facilitate compliance with FIPS 199 and is presently developing a tool to facilitate compliance with the new risk assessments.

[5] *Applies to CPS add-on systems WIS and EASY*
[6] *Applies to CPS add-on systems WIS and EASY*

Appropriate levels of security will be implemented for the systems based on the outcome of the system categorization, new risk assessment, and guidance.

Table 2.5 lists the types of information stored and managed in the current financial management applications, which will enable OCFO OEI to categorize each system in compliance with FIPS PUB 199, Standards for Security Categorization of Federal Information and Information Systems.

Table 2.5. Financial Management Applications' Examples of EPA Information Categories

Financial Data
▪ Funds Management
▪ Obligations and Commitments
▪ Payment Management
▪ Receipt Management
▪ Project/Cost Accounting
▪ Asset Management
Human Assets Data
▪ Person
▪ Position
Capital Assets (Property) & Services Data
▪ EPA Facility
▪ Equipment
▪ Services
Program Management Data
▪ Program
▪ Planning and Performance Information
▪ Organization
Acquisition Assistance Data
▪ Funding Vehicle
▪ Business Partner

3. Target Environment

This section proposes a target functional and technical environment for EPA's future financial system solution. This target environment will support EPA's financial management business functions as outlined in its BRM. While the business functions or "what" is accomplished are static, the target environment proposes a different approach to "how" those functions are accomplished.

The information presented in this section will be used as a basis for the final environment and will assist EPA in defining more detailed requirements for the envisioned system. One of the primary goals of the FSMP, however, is to evaluate the functionality of the existing systems within the scope of the FSMP, and to determine a solution that best fulfills the required functionality given cost, risk, integration, and efficiency considerations. This evaluation will ultimately determine whether EPA's existing functionalities and requirements could be more effectively handled by COTS financial management software, or whether it would be most effective to continue to utilize existing systems in combination with COTS software.

The FSMP will effectively address the weaknesses of the current financial management applications, improve on the current applications' strengths, and address the need to be compliant with government directives and initiatives, including the FM LoB vision. In addition, the new system will make maximum use of enabling technologies, such as EAI, and e-Government initiatives, including intergovernmental activities, while at the same time improving the efficiency and effectiveness of internal processes. Reducing the number of systems required to perform financial management functions ultimately will reduce the costs associated with supporting the financial management mission, as well as providing for efficiency improvements.

Nine overarching themes govern how EPA envisions the new system:

1. **Consistent Data.** Financial applications will share the same uniform data fields and edits to achieve data integration. The FSMP will become the authoritative application for core financial data and will share its data with other internal or external financial applications through the EAI component.

2. **System Interoperability.** The envisioned system will use EPA's standard database, operating system, and software engineering products and will comply with the technologies and standards dictated by the EPA TRM. Doing so will contribute to increased system interoperability and integration with new and legacy systems. In addition, the envisioned system will make use of the EAI component to communicate with systems internal and external to EPA.

3. **Information On-Demand.** The envisioned system will operate on the web in a real- or near real-time fashion. Data passed among financial applications will be monitored and tracked for timeliness and accuracy.

4. **Standardized Reporting Systems.** The envisioned system will provide standardized JFMIP-compliant reporting. In addition, the envisioned system will feed information to the ADW component to support additional financial reporting.

5. **Centralized Core Financial System.** The envisioned system will continue to provide EPA with a single GL agency wide, which will continue to simplify the overall financial management process.

6. **High System Availability.** The envisioned system will improve the current system's 95 percent availability.

7. **High System Usability.** The envisioned system will follow web- and Windows-based user interface standards where point-and-click, drag-and-drop, online help, and other capabilities are inherent to the application.
8. **Reduction of Cuff Systems.** Cuff systems are systems built by one or more elements of the user community to meet user requirements not met by the enterprise applications. The envisioned system will address these functionality gaps and functional problems and have the capability to export financial data to common-use software such as spreadsheets and personal databases, thereby reducing the need for cuff systems.
9. **High Levels of Security.** The envisioned system will meet or exceed today's increased security requirements and support electronic transaction processing.

3.1 Description of the Target Processing Environment

The overall structure for financial management within EPA is not expected to change as a result of the FSMP; however, there are efforts currently underway, such as the financial center consolidation project, which will affect the implementation of the new system.

In the new environment, the OCFO will retain overall responsibility for financial management in EPA. With the Financial Center Consolidation, the majority of the day-to-day accounting transactions will be performed by the four Financial Centers as follows:

Financial Center Location	Examples of Work to be Performed
Washington, D.C.	Payroll
Cincinnati, OH	Interagency agreements, Bankcard, travel, and accounts receivable
Las Vegas, NV	Grants
Research Triangle Park, NC	WCF, contract payments, small acquisition purchases and other accounts payable

Figure 3.1 depicts EPA's ten Regions along with the four Financial Centers.

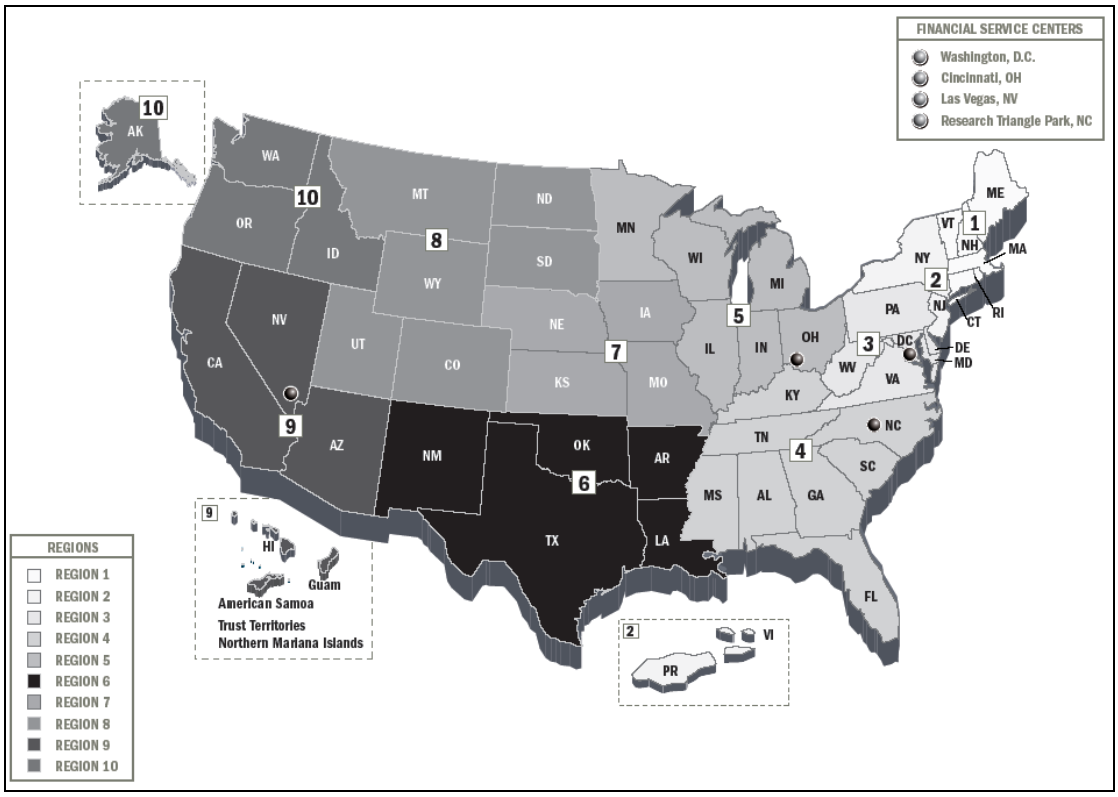

Figure 3.1. EPA Regions and Financial Centers

While the target environment is expected to be different from the current environment, the underlying business functions that the target environment is expected to support will remain the same as defined in EPA's BRM version 3.1. The following sections highlight specific business processes or functionalities that EPA would like to see addressed by the future financial system in the following areas:

General Ledger
Strategic Plan Management and Budget Formulation
Budget Execution
Receivable Management
Payment Management
Cost/Project Management
Property Management
Working Capital Fund

3.1.1 General Ledger

It is anticipated that the projected "to-be" environment will expand upon IFMS' capabilities, enabling increased automation of currently manual processes and the ability to track and record data to a more detailed level. For example, the "to-be" environment should support drill-down capabilities, so that the GL account balances may be obtained from the summary level to the sub-account or subsidiary account level, and at the U.S. SGL level. In addition, the system should provide the option to select whether GL account balances are rolled up to the Treasury Agency Symbol level, internal fund level, or organization level. It is envisioned that new functionalities, including using default functionality to populate transaction codes and limiting users' access to specific transaction types, will decrease the number of

adjusting transactions required to correct erroneous GL postings. It is also anticipated that the system will support an extended account number field that will provide the ability to accommodate additional information such as a federal versus non-federal designation and a reimbursable versus non-reimbursable designation. In addition, the system should provide detail data elements for each GL account in the accounting period, such as the beginning balance, total amount of debits and credits, and the cumulative ending balance. Such system abilities will provide EPA with a more robust and accurate data set for reporting and analysis.

The "to-be" environment should also support more flexible and robust automated reporting capabilities. Especially as the new management environment requires EPA to produce reports more frequently, and in shorter time frames, automation of both internal and external reports will be a necessity. FACTS II, as an example, has frequently been cited as an area that could greatly be improved with more flexible automation capabilities.

3.1.2 Strategic Plan Management and Budget Formulation

EPA has been a federal government leader in the strategic plan management and budget formulation processes in recent years. The current process is held up as a model for other agencies. While BAS currently supports their Strategic Plan Management and Budget Formulation needs, the Office of Budget staff indicated that it would be helpful for the envisioned system to track standard phrases used in preparing briefings and submissions to OMB and Congress. These documents include more than the numbers typically tracked in a financial system; they include narrative to justify and explain the financial data. The narrative includes a substantial number of standardized phrases, sentences, and paragraphs that should be used consistently in the budget submissions and briefings. The 'to-be' environment would also incorporate functionality to track narrative development and changes, and to collate the full document, including charts, into its final format. In addition, the future environment would include the development and tracking of fact sheets for various Congressional communication processes (hearings, response to mark-up, etc) that include budget tables, as well as the ability to track issues as they arise during the appropriation of formulation process.

The envisioned system will allow regions and programs to have access to data while also allowing data to be rolled up and consolidated agency-wide. It will also support strategic plan management by tracking outcomes and spending by goal and performance measure.

3.1.3 Budget Execution

The projected "to-be" environment will offer EPA Funds Administrators, as well as other office and regional personnel, a user-friendly system with improved internal/external reporting, funds control, resource monitoring, and rule development capabilities.

The new financial management system will be flexible, with the ability to adapt to budget execution's central, headquarter office, and regional needs within a changing legislative environment. Specifically, the system will afford users with more robust internal and external reporting capabilities, which will be automated to reduce the time and effort expended by personnel. Flexible settings for floors, ceilings and restricted use fund will streamline funds control and accountability. Integrating the earmarks identification and tracking ('stakeholder process') will also provide greater accountability and allow for more efficient management review. The system will diminish the number of overlapping and redundant tasks required by users and roll over authority from year to year. For example, reimbursable authority will be transferred from one year to another to streamline the reimbursable process. Additional functionalities, including integrated crosswalks into new structures, will address the changing budget planning structure and make transitioning more seamless.

Automating many of the previously manual budget execution processes, providing the ability to flexibly establish edit checks and other data entry improvements, and integrating the new functionality would eliminate the need to maintain numerous auxiliary systems and tools that currently supplement IFMS. The result will be a comprehensive central data source that will produce a timely, accurate, and trustworthy data set for users and decision makers. The ability to track budgets and includes descriptive information at a lower level of detail that can be designated by users at the office level will also benefit managers seeking to improve accountability.

3.1.4 Receivable Management

Many of EPA's financial services will be consolidated in FY 2006. As a result, the Receivable Management function will be handled primarily in the Cincinnati Financial Center. Specifically, the Cincinnati office will be responsible for small purchases, travel, and regulatory receivables. Regional finance offices, however, will handle receivables for overpayments or refunds. There is currently discussion regarding whether Freedom of Information Act (FOIA) and legal regulatory actions will occur in the regions or if they too will be consolidated into one area.

In the "to-be" environment, a more robust Accounts Receivable subsystem will be implemented, which will enable many of the currently manual processes to be automated. Some examples of functionality that are envisioned to be automated in the future include the ability to automatically produce billing and dunning notices, provide automatic notification when dunning notices should be sent out, automate the interagency agreements similar to how Oil Spills billing is currently handled, and automate the referral of delinquent accounts to Treasury and DOJ (for Superfund). In addition to these processes, there are additional areas that are anticipated to be strengthened or available in the new system, including the ability to track and record installments and partial payments, ensure more reliable interest calculations, including simple and compounded interest calculations, and provide for better tracking of aged receivables, which is currently not possible without the assistance of separate tracking tools. Because this functionality has not been made available in the current system or was a cumbersome process, auxiliary systems were produced to perform these functions. Automating many of these processes and incorporating these capabilities will eliminate the need to maintain separate databases and tracking tools that currently supplement IFMS in these areas.

3.1.5 Payment Management

In the projected "to-be" environment, EPA will have a comprehensive Accounts Payable system that will expand upon the capabilities currently provided by IFMS. Specifically, some manual processes will become automated in the future system, such as the approval and routing process to expedite authorization turnaround. The "to-be" environment looks to leverage technology to improve process efficiencies. For example, the payment process could receive electronic invoices, thereby capturing an increased level of detail with less effort. The electronic information could then be routed electronically through the approval process. Alternately the payment system may store transactions on a system-contained data warehouse to enable authorized system users to access the data from any office or region throughout the country.

The future system will accommodate additional functionality that IFMS currently does not support and that has resulted in auxiliary systems such as allocating expenses across accounting lines by percentages and capturing additional information required for reporting and data inquiries, for example contract administrative data. Both the COTS system and the auxiliary systems that have been developed (e.g., SPITS and CPS) will be evaluated to determine a financial management solution that best fulfills the required functionality given cost, risk, integration, and efficiency considerations, In places where the new financial system does not contain the full functionality of the auxiliary system, it is

anticipated that real-time interfaces would be integrated where possible. One area where the need to provide either an interface or some level of integration became evident was between the new financial system and OAM's acquisition systems.

In addition to improving processes and data integrity, reducing the number of systems or ensuring automated interfaces between the systems would enable more efficient management decision-making. Managers would be able to look at consolidated information in a central location rather than relying on numerous systems to gather the data.

3.1.6 Cost/Project Management

In the future environment, the new financial system will enable additional project data and data at a lower level of detail to be captured, including request versus approved budget at the project level, descriptions of projects and milestones, and edit tracking. These changes would enable decision-makers to access detailed information and generate reports from one system while eliminating the need for extra "stovepiped" systems. In addition, the offices envision that a new financial system will provide for better allocation capabilities so that indirect costs could be more easily allocated to projects, that the new financial system will help managers track FTEs by project and that auxiliary systems still required by the offices will be able to easily extract required data. It is also critical that in the "to-be" environment a mechanism for "checks and balances" be implemented to ensure that data is congruent among all interfaced systems and repositories.

3.1.7 Property Management

EPA has recently implemented SLATE, a new system for managing real property, which is a customized Tririga Facility Center 8i COTS product. EPA continues to add capabilities within SLATE to better manage its facilities. For personal property, the non-financial management functions will be provided by an EPA system internally developed by staff in Research Triangle Park known as PMD. PMD currently has read-only data capability of the core financial system via the Financial Data Warehouse, which is critical to its functionality. It is unknown at this time how these systems will interface with the envisioned FSMP.

EPA is also currently in the process of implementing an enhanced training program for personal property management, and it considers a more centralized level of oversight and control to be a desired change for a "to-be" state. For example, program managers currently only need internal manager approval for acquisitions, but the need to account better for Agency property may result in a centralized approval process. Control should include PCO approvals before property is purchased, or at least ratification. Plans are in place to begin flagging related Bankcard purchases in IFMS. Contract purchases, typically of higher dollar value, would ideally involve an interface between ICMS and the financial system (currently IFMS), which is not currently available. Held property is another area that needs a robust application. This area could be overcome with electronic access to contractor-held data from within EPA systems because all contractors use approved property management systems. Similarly, information should be captured and available for property purchased through grants by states and universities and to track "Superfund" property.

EPA property managers anticipate the "to-be" environment to be more robust to overcome current difficulty in reconciling between financial and property records and other functions such as discrepancies between acquisition and in-service dates to provide appropriate internal controls. EPA has considered other desired changes and has agreed to provide specifics that have not been available to date.

3.1.8 Working Capital Fund

EPA's WBS and the Pillar budget analyzer tool have been designed to support EPA's WCF activities in ways that, because of lack of system functionality or configuration, IFMS was not able to support. Analysis of the new financial system will be conducted to ascertain whether functionality currently provided by the WCF systems could be supported by the new financial system or whether the existing auxiliary systems would need to be maintained. While the formulation and workload information may not be in the new financial system, the financial results must be available in the financial system, although possibly at a summary level.

Under the "to-be" environment, EPA anticipates that currently manual processes would be automated, including reprogramming funds from the reserve to the WCF allowance. In addition, EPA will analyze the feasibility of capturing funding data at a detailed level to facilitate meeting the requirements set forth for IT Accounting and determining the lowest level of granularity for reporting purposes. Financial reporting (costs and revenue) at the service level with allocation of overhead costs to create a P&L statement is a mandatory requirement of the new system. An additional area that will be considered for automation in the future is the close-out of service agreements that takes place every year. Even though WCF funding is no-year funding, the customer's money is appropriated and therefore expires. In an effort to facilitate the process for their customers, WCF also closes its books at the end of each year. WCF personnel would like to consider the option of adding money to a service agreement and, for service agreements that are not deemed "severable," having the remaining money automatically rolled over each year, essentially creating a "multi-year serviceable agreement."

3.2 Description of Target Technical Environment

The new financial management system envisioned under FSMP will be evaluated to determine which current financial applications it will replace. At a minimum, the financial management system will replace IFMS and will include an ODS for operational reporting and integration with the ADW. The envisioned solution will become the single and comprehensive automated source that creates or manipulates data to support EPA's financial management functions.

The following sections provide high-level requirements for the new financial management system to include automated interfaces, technology infrastructure, and security protection levels.

3.2.1 Automated Interfaces

Figure 3.2 presents EPA's Administrative Systems Target Architecture and shows target interfaces for FSMP.

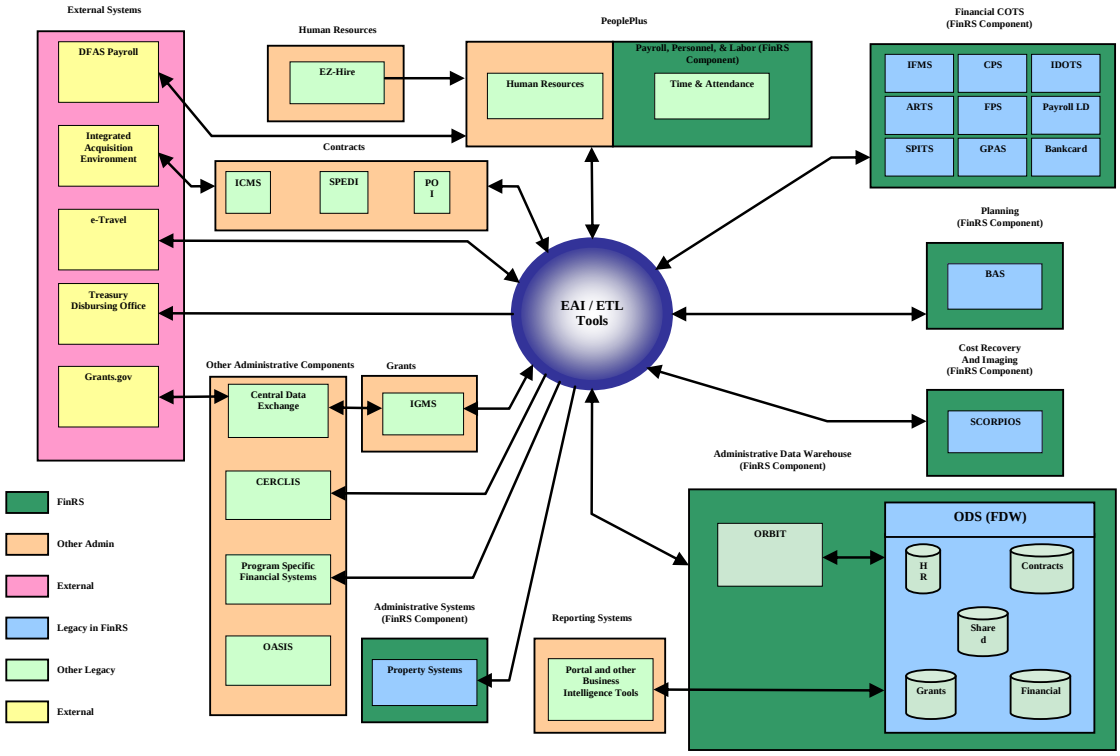

Figure 3.2. Target Automated Interfaces

Note that the interfaces among the FinRS components and with other applications are managed using a common EAI tool, an integral part of the EAI component of FinRS. The EAI tool, acting as the "hub" for communication, allows for real-time or near real-time data transfer while reducing the number of interfaces each application must manage. This tool also provides a focused approach for promoting the use of common interface and communication protocols among internal and external applications.

Table 3.1 provides a list of potential applications that may, in whole or in part, be replaced by the FSMP.

Table 3.1. Candidate Applications For Replacement by FSMP

Asbestos Receivable Tracking System (ARTS)	Integrated Financial Management System (IFMS)
Bankcard Payment System	ORD's Management Information System (OMIS)/Integrated Resource Management System (IRMS)
Cost Allocation	Office of Pesticides Program Information Network (OPPIN)
Budget Automation System (BAS)	Payroll Labor Distribution
Contract Payment System (CPS)	Property Inventory
Fellowship Payment System (FPS)	Property Management Database (PMD)
Financial Data Warehouse (FDW)	Small Purchase Information Tracking System (SPITS)
Grant Payment Allocation System (GPAS)	Strategic Lease and Asset Tracking Enterprise (SLATE)
Inter-Agency Document Online Tracking System (IDOTS)	Workload and Billing System (WBS)

3.2.2 Technical Infrastructure

Figure 3.3 depicts the connections between EPA's primary data processing centers, the major servers supporting the financial systems, and planned connectivity to the third-party hosting the Financial COTS component.

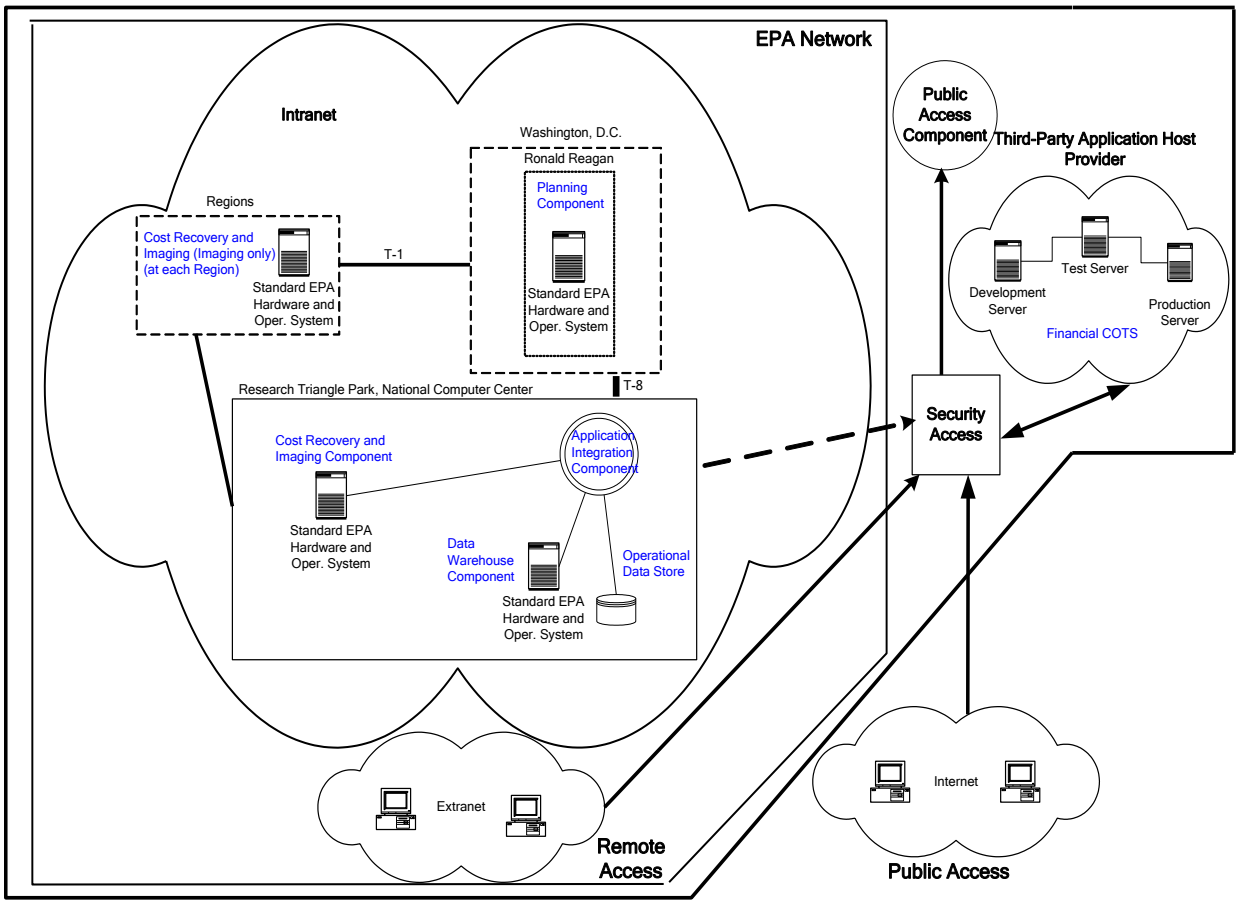

Figure 3.3. Connectivity Among FinRS Components

Table 3.2 provides the database, operating system, and software engineering products that the new financial management system will use. The envisioned system must comply with the technologies and standards dictated by the EPA TRM.

Table 3.2. New Financial Management System Technology

Database	EPA Standard
Operating System	EPA Standard
Software Engineering Product	EPA Standard Programming Language EPA Enterprise Application Integration (EAI) standard EPA Extract, Transform and Load (ETL) standard JFMIP-certified COTS package

The envisioned system will use EPA's standard database, operating system, and software engineering products and will comply with the technologies and standards dictated by the EPA TRM. Doing so will contribute to increased system interoperability and integration with new and legacy systems. Specifically, the new financial management system will include an ODS for capturing the core system's transaction-level financial information in near real-time for operational reporting and as an integration point with the ADW. The ODS is envisioned for hosting within EPA's ADW environment, but could reside at the application host provider site if proven beneficial to EPA. Hosting at the EPA site provides added EPA flexibility for data manipulation and integration as well as the inherent benefit of near real-

time data backup outside the primary data center. Enabling technologies that will be used for FinRS include WebSphere's EAI, Informatica's ETL, Oracle Portal (EPA's enterprise portal tool), and the Oracle database management system. These technologies will provide for integration and expediency at the application and data layers as well as enable an effective data warehouse solution.

EPA has established a long-term strategy to implement a central, enterprise-level identity and access management infrastructure. Once implemented, this infrastructure will provide authentication and certain authorization services to newly developed applications and to previously existing applications for which integration is cost-justified. By leveraging this infrastructure, application developers can be relieved of the necessity to incorporate authentication and authorization functionality into application code. The infrastructure will include an LDAP-compliant "enterprise application directory" containing identity data on internal users (EPA employees, on-site contractors, guests, etc.) as well as external users (mostly extranet business partners and off-site contractors) of participating applications, and an access management system that accesses that directory.

The infrastructure's authorization services will include role-based access control, with user roles and group membership stored in the directory. The number and types of roles to be stored in the directory, yet to be determined, will be based on the individual and collective needs of participating applications. Roles relevant to multiple applications should be stored in the directory and communicated to the application by the centralized access management system, whereas roles that are meaningful only to an individual applications should be managed by the application itself. Examples of roles that may be generally meaningful are organization membership, job title, supervisory status, managerial position ("division director," "branch chief," etc.), geographic location, and possibly some finance-specific roles such as "funds certification official."

3.2.3 Security Protection Level

Security encompasses the policies, procedures, and tools used to ensure data accuracy, integrity, and availability to the appropriate users within their appropriate roles. The new financial management system must provide the most secure means of communication and data integrity possible. Information exchanged inside the Agency, as well as with other government agencies and external stakeholders, must be protected against disclosure, alteration, and unauthorized access. Hardware, hardware/software combinations, or software-only solutions must protect financial information. The envisioned system must be thoroughly evaluated for compliance to NIST Special Publication 800-53, *Recommended Security Controls for Federal Information Systems*, which provides a sufficiently rich set of security controls that satisfy the breadth and depth of security requirements levied on information systems and that are consistent with and complementary to other established federal security standards. EPA is currently addressing compliance to NIST 800-53 through updates to its Information Security Manual and associated instructions. Other government-wide legislation being addressed include the Computer Security Act of 1987, Guidance on Implementing the Government Information Security Reform Act - OMB M-01-08, Information Security Risk Assessment, Practices of Leading Organizations - GAO/AIMD-00-33, Federal Information Security: Action Needed to Address Widespread Weaknesses - GAO T-AIMD-00-135, and emerging standards for XML, digital signatures, and credit card transactions.

As part of addressing compliance to NIST 800-53, the EPA is currently engaged in categorizing its information systems following the FIPS PUB 199, Standards for Security Categorization of Federal Information and Information Systems, and using NIST 800-60, Guide for Mapping Types of Information and Information Systems to Security Categories, as guidance. Preliminary work done to date (April 2005) by the EPA Information Security Officer (ISO) indicates that the current financial management applications' security category (SC) is **MODERATE**. Determining the SC for any information system

requires analysis of the security categories for all information types resident in the information system. The generalized format for expressing the SC, for an information system is:

SC information system = {(**confidentiality**, *impact*), (**integrity**, *impact*), **availability**, *impact*)},

where **confidentiality**, **integrity**, and **availability** are security objectives with acceptable values for potential *impact* of LOW, MODERATE, or HIGH.

Table 3.3 below summarizes the potential *impact* for each security objective.

Table 3.3. Impact Definitions per Security Objective

Security Objective	Potential Impact		
	Low	**Moderate**	**High**
Confidentiality. Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information. [44 U.S.C., SEC. 3542]	The unauthorized disclosure of information could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.
Integrity. Guarding against improper information modification or destruction, and includes ensuring information non-repudiation and authenticity. [44 U.S.C., SEC. 3542]	The unauthorized modification or destruction of information could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.
Availability. Ensuring timely and reliable access to and use of information. [44 U.S.C., SEC. 3542]	The disruption of access to or use of information or an information system could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.

The new financial management system must then comply with all security controls recommended under NIST 800-53 pertinent to its SC, currently deemed **MODERATE**, as well as other pertinent policies, procedures, and tools to be specified in updates to the EPA Information Security Manual. Table 3.4 below is an excerpt of the minimum security controls for two of the 17 security control families recommended under NIST 800-53.

Table 3.4. Security Controls (NIST 800-53 Excerpt)

CNTL NO.	CONTROL NAME	CONTROL BASELINES		
		LOW	MOD	HIGH
System and Communications Protection				
SC-1	System and Communications Protection Policy and Procedures	SC-1	SC-1	SC-1
SC-2	Application Partitioning	Not Selected	SC-2	SC-2
SC-3	Security Function Isolation	Not Selected	Not selected	SC-3
SC-4	Information Remnants	Not Selected	SC-4	SC-4
SC-5	Denial of Service Protection	SC-5	SC-5	SC-5
SC-6	Resource Priority	Not Selected	SC-6	SC-6
SC-7	Boundary Protection	SC-7	SC-7 (1)	SC-7 (1)
SC-8	Transmission Integrity	Not Selected	SC-8	SC-8 (1)
SC-9	Transmission Confidentiality	Not Selected	SC-9	SC-9 (1)
SC-10	Network Disconnect	Not Selected	SC-10	SC-10
SC-11	Trusted Path	Not Selected	Not Selected	Not Selected
SC-12	Cryptographic Key Establishment and Management	Not Selected	SC-12	SC-12
SC-13	Use of Validated Cryptography	SC-13	SC-13	SC-13
SC-14	Public Access Protections	SC-14	SC-14	SC-14
SC-15	Collaborative Computing	Not Selected	SC-15	SC-15
SC-16	Transmission of Security Parameters	Not Selected	Not Selected	Not Selected
SC-17	Public Key Infrastructure Certificates	Not Selected	SC-17	SC-17
SC-18	Mobile Code	Not Selected	SC-18	SC-18
SC-19	Voice Over Internet Protocol	Not Selected	SC-19	SC-19
System and Information Integrity				
SI-1	System and Information Integrity Policy and Procedures	SI-1	SI-1	SI-1
SI-2	Flaw Remediation	SI-2	SI-2	SI-2
SI-3	Malicious Code Protection	SI-3	SI-3 (1)	SI-3 (1) (2)
SI-4	Intrusion Detection Tools and Techniques	Not Selected	SI-4	SI-4
SI-5	Security Alerts and Advisories	SI-5	SI-5	SI-5
SI-6	Security Functionality Verification	Not Selected	SI-6	SI-6 (1)
SI-7	Software and Information Integrity	Not Selected	Not Selected	SI-7
SI-8	Spam and Spyware Protection	Not Selected	SI-8	SI-8 (1)
SI-9	Information Input Restrictions	Not Selected	SI-9	SI-9
SI-10	Information Input Accuracy, Completeness, and Validity	Not Selected	SI-10	SI-10
SI-11	Error Handling	Not Selected	SI-11	SI-11
SI-12	Information Output Handling and Retention	Not Selected	SI-12	SI-12

3.2.4 Compliance with EPA Technical Initiatives

EPA-wide technical initiatives that will impact the implementation of the new financial management system include the following:

- **Business Intelligence.** This initiative standardizes the use of a common business intelligence tool throughout EPA (currently Business Objects). This initiative, which uses the ADW and its sub-components as sources for financial information will effectively address EPA's financial management standard and ad hoc reporting needs.
- **Document Management.** This initiative standardizes the use of a common document management tool throughout EPA (currently Documentum). This initiative will significantly reduce the burden for the new financial management system to provide robust document management capabilities.

- **Enterprise Portal.** This initiative provides for user registration and authentication services, data collection and exchange network services, and access services. Key projects like the Central Data Exchange (CDX), System of Access, and www.epa.gov are well underway to support this initiative. The current EPA portal environment is supported by the Oracle Portal tool.
- **Integration Tools.** Two enterprise-level tools can be leveraged to implement the new financial management system: EPA's standard ETL tool (i.e., Informatica) to move data from multiple EPA sources, reformat and cleanse the data, and load the data into another database, data mart or a data warehouse for analysis, or on another operational system to support a business process; and OCFO's standard EAI tool (i.e., IBM's WebSphere) to manage information exchange and integration among EPA enterprise applications.
- **e-Authentication.** This initiative, spearheaded by the e-Gov presidential program, will provide EPA with remote identity authentication of individuals for the purpose of electronic government and commerce on EPA IT systems. Federal guidance for this initiative is provided by NIST 800-63, Electronic Authentication Guideline, which supplements OMB guidance, E-Authentication Guidance for Federal Agencies (OMB 04-04).
- **Employee Identification Card.** This initiative, mandated under Homeland Security Presidential Directive 12 (HSPD 12), provides for the implementation of a government-wide interoperable employee identification card. This initiative will provide EPA the capability of verifying the identity of federal employees and federal contractors seeking physical access to EPA facilities or to sensitive information within EPA IT systems. Federal guidance for this initiative is provided by FIPS PUB 201, PIV of Federal Employees and Contractors, and NIST 800-73, Interfaces for Personal Identity Verification. The PIV standard is composed of two parts: The first part (PIV-I) describes the minimum requirements for a Federal personal identification system that meets the control and security objectives of HSPD 12, including personal identity proofing, registration, and issuance, and; the second part (PIV-II) provides detailed technical specifications to support the control and security objectives in PIV-I as well as interoperability among Federal departments and agencies. Federal departments and agencies shall meet the requirements of PIV-I no later than October 27, 2005.

The new financial management system should be designed and implemented to use or interoperate with the above mentioned EPA-wide initiatives.

4. Impact Considerations

The implementation of a new financial system can have far-reaching consequences for any organization. The transition to the new financial system is no different and will have a substantial impact on the financial communities across EPA. It will also impact the individuals, including program managers and executives, who use the analytical documents and reports produced by this group to monitor and meet their business performance objectives. These operational and organizational considerations can be positive or negative, depending upon how effectively they are managed by the organization. If the impacts and associated risks are not addressed, they may impede the organization's ability to realize its performance objectives. If they are addressed appropriately, the Agency greatly increases its chances for achieving dramatic improvements in efficiency and effectiveness. By developing an early awareness of these impacts and risks, the Agency can ensure that it is positioned to maximize improvement opportunities and that it will have the time required to address issues and prevent them from impeding the success of the implementation effort.

The following are seven potential impact areas that have been identified for the FSMP:

Funding

Process Performance Model

Individual and Organizational Roles and Responsibilities

Policy

Disposition of Legacy Systems

Acquisition

- ADW

By identifying these potential impacts early, EPA can build risk mitigation into the implementation plan for the envisioned system. The following sections discuss the potential impacts, as well as potential response actions to each of the impacts.

4.1 Funding

One of the major risks in any system implementation is that an insufficient or unpredictable funding stream could delay or derail the implementation. Careful monitoring of the project's budget, as well as consideration of a component-based or phased implementation, could reduce the risk to the implementation due to lack of funding.

Risk	Funding may be insufficient or unpredictable.
Impact	Insufficient funding may cause the project to be either delayed or decreased in scope.
Potential Response Actions	▪ Employ a component-based, phased implementation to spread out the funding across a longer period of time. ▪ Develop more than one scope scenario. Determine which parts of the project can be delayed or eliminated in advance. ▪ Closely monitor the project's budget.

4.2 Process Performance Model

One of the principal objectives of the new system implementation is to eliminate current inefficiencies that can be traced to the lack of uniformity with which the Agency performs financial processes. Another

objective is for the Agency to obtain a single, consistent view of activities and performance across the entire organization. Reducing inefficiency and enhancing the quality and availability of information through the use of the envisioned system may require the implementation of a new standard process performance model.

Risk	Personnel will not reach agreement on and/or implement standards-based business processes.
Impact	The system will not be utilized to its full potential and efficiencies will not be realized.
Potential Response Actions	▪ To realize the benefits of the new system, EPA should move to a more consistent process performance model. ▪ Engage in financial to-be business process workshops in which standardized uniform processes, data, and reporting requirements are drafted. ▪ Establish standard performance measurements for the final financial to-be business processes. ▪ Foster buy-in from user and management communities and establish consensus on standard processes: ▪ Achieve consensus during the to-be workshops on process standardization. ▪ Establish a good communications network and training program and implement them.

4.3 Individual and Organizational Roles and Responsibilities

Changes to the current process performance model may impact the current individual and organizational roles and responsibilities. The nature of the roles played by people today within the financial services teams may change, possibly moving from a largely transaction-based model to a knowledge worker model. As a consequence, individual job and organizational descriptions will likely need review and revision, and the performance objectives and measurements associated with these jobs may need to be reconsidered as well.

Risk	Individual and organizational roles will not match new business processes that result from the FSMP.
Impact	The current description of individual and organizational roles and responsibilities may require modifications. This impact to the jobs people perform and their relationships with one another will require attention if the new system is to be utilized effectively. Personnel will be resistant to adopt new business processes and roles and responsibilities.
Potential Response Actions	▪ Engage in a change management strategy to ensure the successful transformation from the current work environment to the desired to-be work environment. The change management strategy will address areas such as readiness assessments, transformation plans, communication and collaboration, training, and performance measures. ▪ Effectively communicate benefits of new system to user and management community. ▪ Build buy-in by inviting user and management participation throughout system implementation and development process. ▪ Establish a good training program and train individuals in new knowledge and skill areas required by new processes.

4.4 Policy

When the process performance model is altered and roles and responsibilities and organization structure are redesigned, there will necessarily be significant impacts to the policies that govern the work environment. The implementation of the new system may provide EPA with the opportunity to update or revise policies that had been dictated by the older technology of the legacy systems. For example, the requirements development focus groups identified policy questions about methods for calculating interest, how prior-year adjustments should be recorded, and the calculation of the allowance for loss.

Risk	Existing policies might be modified as a result of the new organization and functionality of the new financial system.
Impact	Policies will not be in line with new business processes. Personnel will be resistant to adopt new policies.
Potential Response Actions	▪ Identify impacts to policies during preliminary financial to-be business process workshops. ▪ Further develop and identify the impacts to policies throughout analysis of the processes, adding new policies (e.g., the introduction of standard procedures, data definitions), changing existing policies, and eliminating policies as required. ▪ Implement a change management, communications, and training strategy to ensure that all members of the Agency who are impacted by the change are aware of it and understand its nature and consequences.

4.5 Disposition of Legacy Systems

Currently, regions and programs maintain systems in addition to IFMS to track financial data. For example, Office of Research & Development (ORD) has developed several systems such as IRMS that provide for the integration of research planning, budget formulation, budget execution, and strategic plan management, to meet needs not fulfilled by existing OCFO systems. It is anticipated that the new financial system could provide the functionality currently performed in these auxiliary systems. Prior to determining the disposition of the legacy systems, EPA will need to verify that the new FSMP can provide the needed functionality.

Risk	Existing systems may be retired or interfaced with the new system after the implementation of the FSMP.
Impact	Functionality might not be fully replicated in the FSMP. Data will need to be converted or archived.
Potential Response Actions	▪ Identify the functions and data captured in auxiliary systems early. ▪ Work with system owners to develop data conversion strategies and retirement plans.

4.6 Acquisition

The acquisition function is not included in the scope of the FSMP; however, acquisition and financial management are closely related. To ensure access to timely financial data, EPA acquisition systems, including manual processes and interfaces, must be examined to ensure the proper and timely exchange of financial data between legacy acquisition systems that will remain in use at EPA and the FSMP.

Risk	Appropriate level of Information may not be shared between acquisition systems and the FSMP.
Impact	EPA must determine how information will be communicated between the acquisition systems and the FSMP. This may result in the development of an interface or in an integrated acquisition/FSMP. Interface development may not be a good use of funds if the acquisition system is replaced shortly after the development of the interface. Acquisition systems are not consistent across EPA, resulting in different data being available depending on the system used. If no interface is developed, re-keying data introduces the risk of error.
Potential Response Actions	▪ Conduct the analysis to determine if an interface should be developed. ▪ Include the acquisition staff in the development of the FSMP to make sure that the information flow between acquisition and the FSMP is not overlooked.

4.7 Administrative Data Warehouse

EPA currently has an initiative underway to develop a more robust data warehouse. The data warehouse project and the FSMP must be aligned to ensure that the data warehouse will be able to properly interface with the new financial system.

Risk	The ADW may not be able to pull all needed data from the FSMP.
Impact	Users will rely on the ADW as the primary means to access reports and that data may not be complete.
Potential Response Actions	▪ Coordinate the work of the two projects. ▪ Appoint liaisons from each project to make sure all needed information is communicated.

4.8 Additional Risks

Table 4.1 lists additional risks that often arise during financial systems implementations. Early attention to these issues, broad involvement from all parts of the organization, and the engagement of top management can go a long way to ensuring that they do not impede the success of the effort.

Table 4.1. Common System Implementation Risks

Risks	
▪ Insufficient Staffing of Program Management Office (PMO) ▪ Lack of Stakeholder Support ▪ Hardware Viability ▪ Software Viability ▪ Unavailable Software ▪ Difficulty with Data Standardization ▪ Misalignment with Evolving IT Strategies ▪ Insufficient System Development Life Cycle (SDLC) Controls ▪ Insufficient Technical Support ▪ Loss of Vendor Viability ▪ Unmanaged Changes to Scope	▪ Interface Issues ▪ Customization/Modification Issues ▪ Disruption to Operations ▪ Lack of User Support ▪ Extensive Business Process Reengineering ▪ Inadequate Data Cleansing ▪ Difficulty with Data Conversion ▪ Insufficient Program Management ▪ Insufficient Contingency Planning ▪ Lack of Source Code Control ▪ Insufficient Communication ▪ Schedule Compression

Appendix A Stakeholder Interview Summary

A.1 Introduction

Stakeholder interviews were conducted to determine stakeholder needs and concerns as well as to promote buy-in for the FSMP. Interviews had the following objectives:

To understand what's important to the stakeholders' business and what their priorities are

To understand the stakeholders' perception of how well the current system(s) is (are) supporting their needs and in what areas they may be lacking

To identify what the new system might enable for the stakeholders' organizations

To identify future programmatic plans or strategic changes that may affect or be affected by the implementation of a new financial system

- To understand the stakeholders' expectations for the new financial system

The team conducted interviews with individuals from the following organizations:

Air

Water

ORD

OSWER

OARM

OECA

Region 1

Region 3

OEI

A.2 Summary of Results

During the stakeholder interview sessions, several consistent themes emerged:

There is a need for one source of data. If not a single source, then the multiple sources must be more consistent and integrated. The multiple systems are often out of synch making communication and analysis difficult since everyone has a different result for the same inquiry.

There is a need for flexibility. EPA changes the accounting structure every time they change their strategic plan (every 3 years). A system needs to be able to handle the constant change, not just meet today's requirements.

The regions and the programs want to be involved in the process. They want to make sure the system will meet their needs and that they will have a say in how it is configured and implemented.

There is a concern about going back on the merry-go-round. The last two systems that were rolled out have not satisfied the user community. PeoplePlus is not popular, and there are some EPA staff members who still remember the IFMS rollout 16 years ago. People are concerned that this system implementation will repeat the mistakes of the past. Communication and change management will be critical to the success of the project.

The system needs to support full costing. It is currently very difficult to determine how much it costs EPA do perform a task or obtain an outcome. This costing information is necessary for recovering costs as well as justifying why external organizations should work with EPA.

The system needs to link budgets and financials with outcomes. It needs to allow EPA to analyze how FTE decisions affect the budget.

There is a concern that the training and the testing will not be adequate or comprehensive enough to meet EPA's needs. These areas are often the first cut when funding is tight, yet they are critical to the success of the project.

- The system needs to be user friendly. The current system does not use terms that are commonly understood by management-level users. They need to be able to extract meaningful data that they can use for decision-making.

Appendix B Current Financial Management Applications

This appendix describes 16 of the 18 current financial management applications that are in the scope of the FSMP along with their strengths, weaknesses, and current plans for the future.

B.1 ARTS Description

ARTS is a custom-built microcomputer database application that records information for loans issued for asbestos removal in schools, provides loan receivable transactions, tracks repayments of loan debt to loan recipients, and tracks borrowing debt with Treasury according to the Credit Reform Act of 1990. ARTS operates in a stand-alone workstation. The system became operational in January of 1985 and is scheduled for use through September of 2014. ARTS supports the EPA's business functions to Provide Financial Management and Services. ARTS currently has .6 FTE supporting the application per year.

B.1.1 ARTS Strengths

ARTS provides strong automated capabilities for managing receipts, reducing manual efforts. Automated features include all general billing activities including installment billings and most calculations and requirements for meeting the Credit Reform Act of 1990. Data within ARTS accurately reflect the EPA Asbestos loans and debts for repayment to Treasury. Users find ARTS to be reliable and accurate and specifically mentioned the reliable automated interface between ARTS and IFMS. System administrators identified that ARTS has plenty of available disk space in a Graphical User Interface (GUI) based, stable environment and that new ARTS software releases have corrected previously identified security problems. Users also mentioned that ARTS is expecting the last of the loan receivable billings and collections to occur in FY 2013 with the system concluding when any delinquencies have been collected.

B.1.2 ARTS Weaknesses

Users identified that the functionality within ARTS does not allow for all specific calculations of OMB Credit Reform. Limitations within the system also require users to perform and report reconciliations manually between reports and data sets within ARTS. In general, users also feel that the system is difficult to navigate. System support and assistance is limited and system administrators find it difficult to keep ARTS current with IFMS technology changes and upgrades.

B.1.3 Current Plans for the Future

OFS is investigating rehosting the ARTS application onto a newer hardware and software platform.

B.2 Bankcard Payment System Description

The Bankcard Payment System is a custom-built application that records all EPA purchase card transactions and allocates transactions for processing into IFMS. It utilizes Oracle and PL/SQL technology and reads IFMS tables real-time Using Oracle's Procedural Gateway.

The Bankcard Payment System's user community includes EPA's Purchase Card Holders (approximately 1,200) and the Cincinnati Finance Center.

The Bankcard Payment System establishes a database of all EPA purchase card transactions, provides daily Email notifications to Cardholders and Approving Officials, provides Cardholders with a web page

to "allocate" transactions, allocated transactions are processed into IFMS and daily payments are made to the bank.

Bankcard Payment System transactions uploaded into IFMS include commitments (RQ's); Bankcard obligations (BC's); and Bankcard payments (BV's). The Bankcard Payment System processes 106,000 Purchase Card Transactions annually.

B.2.1 Bankcard Payment System Strengths

The Bankcard Payment System provides and ensures the use of reliable data. In addition the development of the system has eliminated need to manually enter hundreds of thousands of obligation and payment transactions manually into IFMS. Email notifications along with visibility of transactions reduces fraud.

B.3 BAS Description

BAS is an EPA designed and developed system, which integrates the Agency's planning, budget formulation and execution, and associated reporting. The system contains resource (dollars and FTE), planning, and performance data critical to EPA management decision-making. BAS became operational in 1998 and is scheduled for use through 2008. BAS supports the EPA's business functions to Manage Strategic Plan and to Provide Annual Planning and Budgeting. BAS currently has 1.5 FTE supporting the application.

The following are the current interfaces of BAS with systems external to OCFO with descriptions of the type of data that is transferred:

IRMS - BAS receives budget formulation files from IRMS on a real time basis as needed.

Other Program RMS - BAS currently sends information related to budget formulation, strategic planning and performance measures from other program office Resource Management Systems (RMS) on a real time as needed basis.

B.3.1 BAS Strengths

Users feel that the data within BAS is 100% accurate and useful in facilitating a strong integration between the budgeting and the strategic planning processes. BAS provides desktop users with access to useful budget formulation and execution data in real time, as well as to useful historical data. BAS data valuable to process performers includes: FTE information, performance information, and annual goals and measures. Users are able to create easy to read Operating and Strategic Plans and facilitate comparative analysis. BAS has automated the projection of payroll costs and has eliminated multiple points of data entry.

BAS' flexible reporting capabilities permit users to upload to and download from spreadsheet applications easily and to sort and manipulate data for analysis. BAS provides audit trail capabilities of any changes made to data as well as version control capabilities. BAS is considered by most users to be an easy to use system and was noted as an exceptional instructional tool for training new staff on EPA's budget and organizational structures. BAS resides in a stable server environment with plenty of available disk space.

B.3.2 BAS Weaknesses

Users who are not experienced with the system noted that navigational capabilities within BAS are awkward, requiring several screens for entering Annual Performance Measures (APMs) and Annual Performance Goals (APGs) and creating operating plans. Inadequate and complicated filtering

capabilities often force users to remove extraneous data from reports manually. Managers specifically noted that BAS is limited in providing cost management and executive level information. Regional users noted system performance and reliability issues, and multiple, confusing versions of data. Some users felt that access to information within BAS is limited for certain planning and budgeting functions. Managers especially mentioned a lack of intuitiveness in operating the system and all users mentioned that BAS training is too limited. The BAS database structure is reported as less than ideal because of the evolving nature of development efforts and the integration of BAS with the EPA Payroll and Personnel System (EPAYS), FDW and IFMS.

B.3.3 Current Plans for the Future

Major plans include an on-line interface of BAS with the IFMS and the new payroll system, PTL; the implementation of a more user friendly web GUI; and enhanced data entry flexibility.

B.4 Cost Allocation Description

Currently, ORD and the OFM are using the cost allocation module of CGI-AMS' COTS Momentum package to allocate indirect costs on a quarterly basis. The Momentum suite was purchased by ORD and implemented as a pilot in that Office. It has since been implemented for use in several areas to support the allocation of indirect costs to environmental programs. There are currently up to 25 user licenses available to EPA at this time.

Distribution accounts containing obligation and expenditure transactions are extracted from IFMS' general journal files. The Momentum cost allocation module uses this data and applies EPA's allocation methodologies to re-distribute resources, and then sends transactions to update the IFMS GL. The methodologies are generated by BAS that transfers allocation instructions to Momentum. Momentum resides on an Oracle database and is hosted on a Windows NT server.

At the time this study was conducted, this software was not considered an OCFO-owned system and therefore, strengths and weaknesses of Momentum were not captured. There are not currently any plans for the future.

B.5 CPS Description

CPS is a custom-built system that processes payments for all EPA contracts and supports an electronic interface to the Department of the Treasury as well as to IFMS. CPS provides the facilities to record all contract obligations and invoices received from vendors for contract services. Once approved, CPS prepares invoice payment files and transmits both check and ACH payment schedules to the U.S. Treasury in accordance with the Prompt Payment Act. CPS processes approximately $1 billion a year in contract payments. CPS became operational in May of 1989 and is scheduled for replacement by the Financial COTS component of FinRS. Two other custom-built systems, WIS and EASY, were developed to provide user-friendly access to CPS for laboratories to generate and submit electronic invoices, and for EPA to electronically approve invoices. CPS supports the EPA’s business functions to Provide Financial Management and Services. CPS currently has less than 1.0 FTE supporting the application per year.

B.5.1 CPS Strengths

CPS is able to provide and track information that IFMS cannot provide such as contractual, administrative, and vendor data. CPS also provides adequate access controls over contractual data as dictated by the policy for certifying officers. With reliable and accurate information, CPS users can produce necessary payment reports including 1099 reports, and the effort required in processing

contract payments is reduced. CPS resides in a stable and reliable environment and at the current stage of its life cycle, O&M costs are considered very low.

B.5.2 CPS Weaknesses

Identified functional weaknesses of CPS were limited. Users noted that the system is not straightforward and easy to use possibly attributed to the character based user interface. CPS uses technology that is dated. It operates in an IBM mainframe using the ADABAS DBMS and the Natural programming language. Specifically, WIS and EASY were developed to provide an end-to-end web-based invoice submission and approval solution for CPS.

B.5.3 Current Plans for the Future

CPS is in the operations and maintenance stage of its life cycle. No plans exist for making significant enhancements or database changes.

B.6 FPS Description

The Fellowship Payment System (FPS) records payment schedules for fellowship recipients, and prepares stipend and tuition payments to students and Universities. FPS processes about 3,000 stipend payments, 550 tuition payments, and 230 expenses and book payments annually. FPS uploads fellowship payment information to IFMS, and reads FDW information in real-time for payment processing. FPS' user community is at the Las Vegas Finance Center. FPS uses Oracle as its Data Base Management System (DBMS) and Oracle Forms as its application software.

B.6.1 FPS Strengths

FPS provides the ability to create payment schedules that are aligned with the school's schedule (e.g., by semester, monthly or monthly with summers off). It interfaces with IFMS and FDW.

B.6.2 FPS Weaknesses

FPS is a custom-built, EPA specific application whose functionality may duplicate what is available thorough COTS applications and tools.

B.6.3 Current Plans for the Future

FPS is in the operations and maintenance stage of its life cycle. No plans exist for making significant enhancements or database changes.

B.7 GPAS Description

GPAS establishes daily "workload" via a daily feed from Treasury's ASAP, provides web-based allocation using approved allocation methodology, identifies lines of accounting which are not yet "accepted" by the grantee, and provides web-based allocation approach for manual grant payments. GPAS processes 33,000 ASAP payments and 12,500 manual grant payments. GPAS uploads ASAP payments (DAs) and grant payments (GPs) to IFMS. GAPS' user community is at the Las Vegas Finance Center. GPAS uses Oracle as its DBMS and Cold Fusion as its application software.

B.7.1 GPAS Strengths

Provides interface from ASAP to automatically record grant payments greatly reducing the need for GPAS users to manually enter grant payment information. Provides grant payment workload allocation

functionality and performs account distribution for the payments. GPAS reads IFMS tables real-time using Oracle's Procedural Gateway.

B.7.2 GPAS Weaknesses

GPAS is a custom-built, EPA specific application whose functionality may duplicate what is available thorough COTS applications and tools.

B.7.3 Current Plans for the Future

GPAS is in the operations and maintenance stage of its life cycle. No plans exist for making significant enhancements or database changes.

B.8 IDOTS Description

IDOTS tracks obligations and payments on Federal orders including Interagency Agreements; Federal Register Printing; Motorpool; and Federal Training, provides POs with ability to review invoice and allocate invoice costs to available obligation lines using web front-end, and generates daily and monthly reports to support reconciliation with IPAC. IDOTS processes 15,000 Payments from IPAC and 5,300 Miscellaneous Payments (e.g., Federal Register Printing, etc.). IDOTS uploads Miscellaneous Obligations (MO's), Payment Vouchers (PV's), and Direct Disbursements (DD's, and IG's) to IFMS. IDOTS' user community is centralized within the Cincinnati Finance Center. IDOTS uses Oracle as its DBMS, and Oracle Forms and PL/SQL as its application software in a client/server environment.

B.8.1 IDOTS Strengths

Enables IDOTS users to track direct (vendor paid directly) and reimbursable (Agency reimbursed) costs within each obligation line. Provides capability to perform adjustments to move funding from general suspense fund to specific account line with one entry. Performing these adjustments in IFMS would require a minimum of four steps for each adjustment. IDOTS reads IFMS tables real-time using Oracle's Procedural Gateway.

B.8.2 IDOTS Weaknesses

IDOTS is a custom-built, EPA specific application whose functionality may duplicate what is available thorough COTS applications and tools.

B.8.3 Current Plans for the Future

IDOTS is in the operations and maintenance stage of its life cycle. No plans exist for making significant enhancements or database changes.

B.9 IFMS Description

IFMS is the EPA's core financial management application. It supports both budget execution and accounting functions. It performs updating of all ledgers and tables, as transactions are processed; and it generates source data for preparing the financial statements and other budgetary reports. IFMS, a modified COTS product, became operational in March of 1989 and is scheduled for use through March of 2007. IFMS supports the EPA's business functions to Provide Annual Planning and Budgeting, Provide Financial Management Services, and to Support Accountability. IFMS currently has 9.5 EPA FTE supporting the application and 10 contractor FTEs supporting the application.

The following are the current interfaces of IFMS with systems external to OCFO with descriptions of the type of data that is transferred:

- **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)** – IFMS sends program/project, commitment, obligation, payment schedule, DCN, purchase order, contract, and account structure data to CERCLIS on a daily basis.
- **IGMS** - IFMS sends commitment, DCN, and account code structure data to IGMS on a nightly basis.
- **ORD's Management Information System (OMIS)** – IRMS receives summary level budgetary as well as commitment, obligation, and payment data from IFMS via a nightly batch job. OMIS/IRMS also receives DCN level, Commitment, Obligation, Payment Schedule/Info, Account Structure, Contract, and Travel Voucher information from MARS in a daily batch. OMIS/IRMS sends Commitment information to IFMS real-time using IBM's Websphere EAI toolset.
- **Grant Information Control System (GICS)** – GICS sends transaction code, appropriation, organization, program/project, obligation, commitment (liquidation), and vendor data to IFMS on a nightly basis.
- **Property Division** - The Property Division sends physical inventory results and asset classification data to IFMS on a yearly basis.
- **Superfund Layoff (SFLO)** – SFLO sends transaction code, appropriation, organization, and program/project data to IFMS on a monthly basis.
- **Treasury Disbursement Office** – IFMS sends employee, vendor, and invoice data to Treasury Disbursement Office on a daily basis.

Small Purchase Electronic Data Interchange System (SPEDI) – SPEDI sends purchase order, transaction code, appropriation, organization, program/project, commitment and vendor data to IFMS on a daily basis.

B.9.1 IFMS Strengths

IFMS users stressed that the application provides strong internal controls over funds management preventing users from exceeding the respective obligation authority. IFMS provides the benefit of a detailed accounting classification structure that meets EPA-specific needs such as Superfund accounting, cost recovery efforts, and counter-terrorism initiatives. Users agree that the application is reliable, accurate, and consistently available for posting, committing, and obligating transactions in real time. As a table-driven application, IFMS data can be modified with ease and few complications by system administrators. Users noted several useful features of IFMS include on-line editing for detection and correction of data input errors and a pause feature available during data entry.

B.9.2 IFMS Weaknesses

Users noted that IFMS lacks flexibility for performing data entry and correcting erroneous transactions (e.g., incorrect property asset record amounts), does not have a GUI and has non-normalized payee data.

Other significant weaknesses revolve around IFMS lack of functionality to perform certain automated tasks, thus requiring EPA stakeholders to perform manual work around processes, which tend to be both time and labor intensive. For example, IFMS account structure is not flexible enough to accommodate changes resulting from the strategic planning process. Therefore, cumbersome

crosswalks are developed to map resources for different budget structures and organizational structures across FYs.

IFMS cannot generate intra-entity elimination transactions, based on six - digit trading partner code. IFMS also does not draw useful and necessary distinctions between various upward and downward adjustments to EPA obligations or expenditures. This affects the ability of IFMS users to post transactions to the appropriate GL account. Examples include:

- Cannot distinguish between the amount of upward and downward adjustment to obligations upon liquidation, cancellation, or adjustment for entries recorded directly into IFMS or fed into IFMS through an interface.
- Cannot distinguish between the upward and downward adjustment to budget authority (both un-expired and expired) when adjustments are made to existing obligations or previously recorded expenditures.
- Cannot automatically classify the upward and downward adjustments as either paid or unpaid according to the status of the related obligation or expenditure, when recording adjustments to prior year obligations for entries recorded directly into IFMS or fed into IFMS through an interface.

IFMS uses technology that is dated, hard to integrate with newer technologies, has been highly customized through contractor support, and makes information retrieval complicated. Moreover, IFMS is currently not compliant with JFMIP technical requirements for open systems architecture and use of a relational database. In addition, IFMS is not currently compatible with all JFMIP Core Accounting Functional Requirements. COBOL is the programming language and ADABAS is the DBMS.

B.9.3 Current Plans for the Future

Major plans for IFMS include maintaining compliance with external and internal requirements with an open and adaptive architecture, as well as to be the official source of EPA financial management information and reporting. EPA will consider changes to IFMS that are cost beneficial and critical for compliance with financial system requirements. Plans are in place for building an interface with IFMS to support the payroll replacement system. In addition, upgrades to new releases of ADABAS and Natural will continue.

B.10 FDW Description

FDW is a collection of EPA financial data in an Oracle database. The FDW collects information from the EPA's financial information systems. Information in the data warehouse is available to the EPA users in two options: through the RTP Intranet by selecting from a list of reports, or through direct access by using Lotus Approach, Impromptu, MS Access, and other tools. The FDW became operational in 1995 and supports the EPA's business functions to Provide Annual Planning and Budgeting, Provide Financial Management Services, and to Support Accountability. FDW currently has technical support of 1.6 FTE and 3.5 FTE supporting the functional application.

The following are the current interfaces of FDW with systems external to OCFO with descriptions of the type of data that is transferred:

GICS - FDW receives grant information from GICS on a daily basis.

ICMS - ICMS sends contract information to FDW on a weekly basis.

- IGMS – FDW sends financial data to IGMS daily.

B.10.1 FDW Strengths

Users of FDW noted the system as valuable in reporting historical transaction data and allowing users to see universal data for comparative analysis. FDW is able to pull information at the DCN level if the data is referenced in IFMS tables and gather it in a timely manner. Frequent users noted that the system is easy to use and provides useful standard reports that can be downloaded into spreadsheets for manipulation as necessary. Users can access IFMS information in FDW when IFMS is unavailable and certain users can access Combined Payroll Redistribution and Reporting System (CPARS)-like data as well. Data within FDW is refreshed four to six times per day, allowing users access to up-to-date information. The FDW is maintained by EPA staff, which permits the addition of data elements and tables as necessary. The FDW web page interface forces the need for user IDs for access to secure information.

B.10.2 FDW Weaknesses

Until the addition of an Agency-wide ad-hoc reporting package, FDW does not have the capability to perform point in time reporting and does not accurately capture all adjustments made in IFMS. Users noted that FDW does not contain critical information, including limited historical information, incomplete payroll information and limited drill down capabilities. FDW information is often not sufficient to provide effective decision-making reports, requiring users to combine FDW and MARS data. Program office users are concerned that the accuracy of reporting data using the DCNs available from MARS will be present in FDW. Users report limited access to certain data elements coupled with an incomplete data dictionary, which hinders the ability to run the full spectrum of reports. Management users noted that the system is complicated for them to use without referring to training and documentation. Managers also expressed that more frequent users may have inappropriate access to broad, secure information. Additionally, staff expressed that there is currently no standard reporting tool within EPA for viewing data and no standard portal to FDW. Due to this, staff must use various tools outside of the system to create needed reports.

B.10.3 Current Plans for the Future

Plans for FDW include extending capabilities for executive reporting and hosting an appropriate business intelligence tool as accepted by the agency.

B.11 ORD Management Information System (OMIS)/Integrated Resource Management System (IRMS) Description

OMIS is a custom-built server application that consists of several components:

OMIS/IRMS - provides for the integration of research planning, budget formulation, budget execution, and strategic plan management, to meet needs not fulfilled by existing OCFO systems (e.g., IFMS, BAS). It also tracks spending including commitments, obligations, and payments at a detailed level.

- OMIS/LIPS – is being retired and once tracked spending including commitments, obligations, and payments at a detailed level. This functionality is now part of the IRMS module.

B.11.1 OMIS/IRMS Strengths

OMIS/IRMS integrates planning, budget formulation, budget execution, and performance measurement into a single system. It also integrates well with IFMS through the Single Point of Data Entry (SPODE) interface and through nightly downloads from IFMS and MARS. OMIS/IRMS provides users with the ability to budget and spend at a level of detail below that of Agency systems. The system is flexible enough to handle changes to budget structure without contractor assistance. Security can be established at organizational, budget phase, and user levels.

B.11.2 OMIS/IRMS Weaknesses

The flexibility embedded in OMIS/IRMS can make the user interface complex at times. The flexible reporting structure (e.g. file based structure) can complicate the design and development of reports. The multiple levels of security in OMIS/IRMS can be difficult to administer.

B.11.3 Current Plans for the Future

OMIS/IRMS is in an operations and maintenance mode. Plans for the future may depend on the outcome of the Agency's FSMP.

B.12 Office of Pesticides Program Information Network (OPPIN) Description

OPPIN is a custom-built server application for detailed time tracking such as time arrived, in-process time, project management, new data categories, fee paid, and time from communication. It sends communications to the fee payer.

OPPIN's primary purpose is to track pesticide product license applications to track submissions made in support of product and chemical ingredient reregistration, tolerance petitions and reassessments, provide a vast array of other information used to support the mission of the Office of Pesticide Programs, and track the review and evaluation of studies and data submitted in support of these pesticide applications. The Pesticide Registration Improvement Act establishes registration services fees along with deadlines for completion of certain registration actions and requires corporate registrants to submit payment to support the work performed by EPA and tracked by EPA's Integrated Financial Management System (IFMS).

B.12.1 OPPIN Strengths

OPPIN is designed to accept datasets supplied by IFMS to track payment information submitted in support of pesticide applications under PRIA. These datasets are processed daily to three times per week depending on the level of activity. Each dataset contains information about the company submitting the payment, the decision number related to the application, the amount paid, and the date the payment was received.

B.12.2 OPPIN Weaknesses

The IFMS transaction dataset are handled manually, but may be better processed in an automated fashion. Currently, a staff member accesses IFMS and retrieves the IFMS data onto a floppy disk. This disk is then used to input the data into OPPIN. Suggestions for improvement of the process include establishing a data mart to integrate the transactions from IFMS to OPPIN in a seamless, automated update data stream.

B.12.3 Current Plans for the Future

OPPIN Plans for the Future: The planned retirement date of OPPIN is September 30, 2008 when the replacement system, PRISM (Pesticide Regulatory Information SysteM) will be in full production. PRISM will be designed to integrate legacy applications, improve data quality by developing automated data collection, develop imaging technology to integrate a document management system and utilize imaging technology to replace existing paper systems, improve work flow for users, and complete a uniform extraction formatting process. The goal of PRISM is to 1) eliminate existing stand-alone, isolated pesticide-related applications, 2) to ensure that all pesticide system interfaces communicate effectively with other EPA systems, and 3) to provide focused, real- time, integrated pesticide information products for EPA Regional agents and inspectors, federal partners, industry, foreign governments, and, eventually, the general public.

B.13 PeoplePlus Description

PeoplePlus System (PPL) is EPA's fully integrated HR, benefits, and payroll time and labor system that was implemented agency wide in October 2004, the start of FY 2005. PPL is jointly owned by the OCFO and the OARM. The PeoplePlus system consists of two separate applications; one application performs HR functions, while the other performs payroll, and time and labor functions.

B.13.1 PeoplePlus Strengths

System strengths include that the system is a “state of the art” and fully integrated HR Time-Payroll-Labor distribution application.

B.13.2 PeoplePlus Weaknesses

The identified weaknesses are that payroll and HR lines of business will require disassembly, development of new interfaces and potential replacement of time and labor distribution.

B.13.3 Current Plans for the Future

EPA began the implementation of the PPL system prior to their notification to migrate to DFAS as their payroll provider. As a result, EPA is currently in the process of preparing for the migration to DFAS which is scheduled to be completed in March 2006, while continuing to maintain and utilize the PPL System.

B.14 Property Inventory Description

EPA utilizes two tools to conduct physical inventories: SYMBOL and Data Logger. SYMBOL is a hardware barcode reader that scans EPA decals to confirm the existence of EPA personal property. This data is loaded into IFMS via a software application called Data Logger. Data Logger also writes the date that the inventory was performed into the IFMS FAS property records.

Property Inventory to IFMS. Property Inventory sends personal property information (e.g., physical inventory results and asset classification) to IFMS at least quarterly.

B.14.1 Property Inventory Strengths

Property Inventory facilitates the inventory process by automating the capture and recordation of key data elements for upload into IFMS. Property Inventory reduces data entry time and data input errors.

B.14.2 Property Inventory Weaknesses

There are no identified weaknesses with Property Inventory.

B.14.3 Current Plans for the Future

There are no significant plans for upgrading, modifying, or replacing the SYMBOL hardware or Data Logger software.

B.15 Property Management Database (PMD) Description

The EPA PMD is a web-based property management system that supports day-to-day property management activities, such as property assignments, transfers, and disposals. The PMD is an essential tool for promoting personal property accountability and resource reutilization within EPA. PMD also generates electronic forms to support property transactions, as well as incorporates workflow

notification mechanisms. PMD is an EPA- developed application based on a COTS product developed by the Coastal Services Center (CSC).

PMD periodically pulls new and updated property records from the IFMS FAS. PMD does not write data to IFMS.

B.15.1 PMD Strengths

PMD will support EPA by automating some of the tasks related to effective personal property management. Tasks that are automated using PMD include transferring property between custodial officers, outside of an accountable area, and off-site; marking property for excess; requesting and correcting decal numbers; generating property passes; and generating a variety of reports. PMD also has an administrative module which permits the establishment of approval routing and user profiles. PMD will provide access to property information by all EPA staff to facilitate the reuse and efficient utilization of property, as well as to assign accountability to employees about property in their possession by providing read-only access to the property data that was previously only viewable by those that had IFMS access.

B.15.2 PMD Weaknesses

PMD is not a JFMIP compliant property management, which represents a significant capabilities gap for EPA, and does not provide full-life cycle property management. Any updates to property records identified within PMD must be manually entered into IFMS to be on the permanent system of record.

B.15.3 Current Plans for the Future

PMD is currently being modified and will be launched as a national property management system in July.

B.16 Strategic Leasing and Asset Tracking Enterprise (SLATE) Description

The SLATE system is a central database for all facilities owned and leased by EPA. The system includes detailed digitized information that includes facility plans and drawing, condition assessments, raw facility data for maintenance and project updates, and other detailed information about the facility. The SLATE system is a comprehensive tool that AEAMB uses in its planning and budgeting process that allows staff to instantly review critical facility data for decision-making.

There are no automated interfaces with any other EPA system.

B.16.1 SLATE Strengths

SLATE is a full life cycle facilities and cost management tool that EPA is used to monitor EPA's real property assets (both owned and leased property). It provides detailed oriented facilities management capabilities beyond financial management. Although it does contain financial data, its primary purpose is to support facilities managers in effectively operating and maintaining their sites.

SLATE Weaknesses

SLATE currently does not interface with IFMS, so financial transactions and lease payments are manually entered into IFMS.

B.16.2 Current Plans for the Future

SLATE is currently being modified to meet additional EPA user requirements.

B.17 SPITS Description

The SPITS application is used to support the timely and accurate processing of small purchase payments. SPITS functional capabilities include: Centralized storage and scheduling of invoice workload, an automated interface with existing systems to receive obligations and make invoice payments, and an online-query capability and enhanced reporting. SPITS supports the EPA's business functions to Provide Financial Management and Services. SPITS currently has less than 0.5 FTE per year doing O&M on the SPITS application.

B.17.1 SPITS Strengths

Users noted specific strong capabilities of SPITS throughout the payment process including: Drawing available balances from IFMS to make payments, identifying missing documents, aging missing documents, tracking invoices and assisting in preventing late payments. SPITS is also able to assist in managing workload distribution when staff are absent. Users noted that due to access to accurate purchasing and 1099 data, SPITS payment processing is more effective, eliminating the need to use IFMS. SPITS user-friendliness allows staff to be cross-trained and eliminates the number of keystrokes necessary to process small purchase payments. SPITS resides in a cost effective, stable server environment and the security implementation is at a level commensurate with the associated risk.

B.17.2 SPITS Weaknesses

SPITS is a client/server application with limited option for future web enabled capability.

B.17.3 Current Plans for the Future

There are no plans to make any significant enhancements or changes to the application.

B.18 Workload and Billing System Description

The WBS application provides billing for technology and postage services for the entire Agency. The system receives 100,000+ workload records each month, and matches these records against customer service agreements to produce a billing statement. Transaction files are uploaded to the Agency's accounting system of record, IFMS. The number of workload records vary widely, from one record/month for supercomputing to 25,000 records per month for email.

B.18.1 WBS Strengths

Strengths of the WCF system include that the system provides effective reports to meet user needs and good billing and workload information.

B.18.2 WBS Weaknesses

Users of the WCF system identified that they are not able to drill down to a sufficient level of detail and that they are not able to see necessary information in the appropriate formats. While reports are useable, some users feel that extra effort is required to understand the content of large reports. Users cannot access historical data within the system necessary for predicting costs and it is difficult to understand cost relationships. The system is a prototype never intended for production, hence the fragile design. Data is split among 100 files to prototype maximum flexibility. Additionally it is not robust and it is costly to maintain and difficult to quality assure.

B.18.3 Current Plans for the Future

Currently no plans for the future are in place for the WCF Workload and Billing System. Any changes or plans for the systems are dependent on decisions regarding the future of other OCFO systems. Once these decisions have been determined, the WCF system staff will adapt the system accordingly.

Appendix C EPA Business Reference Model Version 3.1 Definitions

The definitions listed in this document are based upon EPA's ASA Version 3.1. In some areas, Booz Allen has applied a further decomposition of the functional areas for this project. Specifically, Booz Allen provided an additional breakout of the following sections:

3.8.1 Budget Formulation
3.8.5 Manage Strategic Plan
3.8.6 Budget Execution
4.2.1.3 Manage Payments
4.2.1.4 Manage Receipts
4.2.2.1 Manage Costs

1. Environmental & Health Protection Services

All activities conducted by the Agency to affect its mission of protecting human health and the safeguarding the natural environment—air, water, and land—upon which life depends.

1.1 Pollution Prevention & Control

Activities to prevent or control ongoing sources of pollution, including traditional "command and control" programs as well as voluntary and incentives-based efforts.

1.1.1 Manage Air Quality

Activities to ensure that American communities and surrounding ecosystems will be safe from harmful levels of air pollution.

1.1.2 Manage Water Quality

Activities to ensure the maintenance of oceans, watersheds, waterways and aquatic ecosystems to support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

1.1.3 Ensure Safe Drinking Water

Activities to ensure the availability of safe drinking water.

1.1.4 Manage Wastes

Activities to protect land, air and water resources by reducing solid and hazardous waste generation, increasing waste recycling and ensuring proper management of waste and petroleum products.

1.1.5 Ensure Safe Use of Pesticides

Activities that ensure the safe use of pesticides, insecticides, rodenticides, and fungicides.

1.1.6 Manage Toxic Substances

Activities to manage the manufacture, distribution, use, processing, and disposal of toxic substances to ensure protection of human health and the environment.

1.1.7 Prevent Pollution

Activities that encourage voluntary reduction in the generation of pollution or consumption of energy.

1.1.8 Promote Environmental Stewardship

Activities that encourage the public, industry, and other stakeholders to actively protect and enhance the environment.

1.2 Clean Up Pollution

Activities to clean up and revitalize sites or areas.

1.2.1 Site and Area Cleanup

Activities to clean up formally designated sites or areas that suffer significant environmental degradation, usually from historical industrial pollution.

1.2.2 Respond to Spills/Incidents

Activities to respond on an emergency basis to oil spills, hazardous waste spills, industrial accidents and other environmental emergencies or environmentally-related health emergencies. Includes both removals and first-response cleanups.

1.3 Emergency Management

Activities to respond to environmental emergencies at the local, regional or national levels.

1.3.1 Emergency Prevention

Activities to prevent national or environmental emergencies at the local, regional or national levels.

1.3.2 Emergency Preparedness

Activities to prepare for responding to national or environmental emergencies, including planning; the development of communications protocols and systems; advance coordination with partners such as other federal agencies, states, tribes and localities; stockpiling of equipment and supplies; and the training of staff and response teams.

1.3.3 Response to National Emergencies

Actions to counter the environmental and human health impacts of national emergencies related to terrorism or war.

1.3.4 Response to Natural Disasters

Actions to counter the environmental and human health impacts of natural disasters such as volcanic eruptions, floods, droughts, tornados and severe storms.

1.4 Environmental & Health Status Evaluation

Activities to assess the overall state of the environment and project trends in environmental and human health status.

1.4.1 Environmental Monitoring & Forecasting

Activities to measure ambient environmental conditions in air, land, surface water or groundwater. These include the direct measurement of pollutants and measurement of other environmental

parameters, such as the acidity of water, or the quality and extent of vegetation, or the use of models or other methods to forecast short or long term trends in environmental conditions.

1.4.2 Human Health Monitoring & Forecasting

Direct and indirect measurement of human health parameters related to environmental stressors. These may include the direct analysis of blood and tissue samples, medical evaluations of the presence of disease in individuals and groups, and statistical analysis of disease incidence on the local, regional or national levels, or the use of models or other methods to forecast short or long term trends in human health conditions.

2. Mode of Delivery

The mechanisms the government uses to achieve the purpose of government, or its “Services to Citizens.” It includes financial vehicles, direct government delivery, and indirect government delivery.

2.1 Knowledge Creation & Management

Knowledge creation involves the programs and activities in which the Agency creates or develops a body or set of knowledge, the manipulation and analysis of which can provide inherent benefits for the Agency and its stakeholders and further the Agency's delivery of Environmental and Health Protection services.

2.1.1 Science, Research & Development

All activities that produce original scientific knowledge and technologies to support Agency programmatic needs.

2.1.1.1 Human Health Research

Activities to develop original scientific information on human health issues related to environmental stresses and exposures to pollutants and wastes.

2.1.1.2 Environmental Research

Activities to develop original scientific information on non-human species and ecosystems.

2.1.1.3 Develop Engineering Solutions

Activities to research and develop engineering solutions, such as civil innovations or mechanical tools, for pollution prevention or pollution control.

2.1.1.4 Develop Models and Indicators

Activities to develop environmental and biological variables, relationships, and specific mathematical formulas. Models enable and indicators validate assumptions about the current state and forecasts of the future state of the environment or human health.

2.1.1.5 Develop Methods and Protocols

Activities to develop protocols and approaches to enhance the replicability and standardization of scientific and technical activities in such areas as monitoring media, using models, and assessing and interpreting risks & hazards.

2.1.2 General Purpose Data & Statistics Development

All activities performed in providing empirical, numerical, and related data and information pertaining to the current state of the environment, the environmental or health effects of substances, the associated social or economic impacts of proposed environmental actions, and other formal evaluations conducted in delivery of Agency services.

2.1.2.1 Model and Visualize Information

Analytical work that applies the developed models and methods to enable assumptions and forecasts of environmental and health processes, such as through the use of computer simulations.

2.1.2.2 Perform Assessments

Analytical work of all kinds leading to actionable assessments on matters of concern to regulatory programs, remediation and pollution prevention.

2.1.2.2.1 Assess Sources

Activities to assess sources or classes of sources that discharge or emit pollutants or other substances of interest.

2.1.2.2.2 Assess Risk

Activities to assess risks to human health or the environment associated with a substance or environmental stressor of interest.

2.1.2.2.3 Assess Economic Impact

Activities to assess the economic impacts of a proposed action or observed trend.

2.1.2.2.4 Assess Social Impact

Activities to assess the social impacts of a proposed action or observed trend.

2.1.2.2.5 Assess Legalities

Activities to assess the legal issues of a proposed action or topic of interest.

2.1.2.2.6 Environmental Indicator Assessment

Activities to assess the relationships between Agency actions and changes in environmental quality or human health.

2.1.2.3 Business Analytics

Analysis of information for Agency purposes.

2.1.2.3.1 Geospatial Analysis

Analysis using mapping, photography and automated processes that manipulate and display data related to location.

2.1.2.3.2 Statistical Analysis

Analysis of data through the application of statistical techniques.

2.1.2.3.3 Data Mining

The extraction of implicit, previously unknown, and potentially useful information from data.

2.2 Knowledge Dissemination

Activities where the primary method used in delivery of a service is through the publishing or broadcasting of information, such as the Toxics Release Inventory. (Where publication of information is a by-product of the actual mode of delivery of a service, publication is found under Support Delivery of Service, such as Official Information Dissemination.)

2.3 Regulatory Compliance & Enforcement

Activities involving the direct monitoring and oversight of a specific group, industry, or community via market mechanisms, command and control features, or other means to control or govern conduct or behavior.

2.3.1 Regulatory Mechanisms

2.3.1.1 Manage Substances

All regulatory activities to require reporting about, and manage the production, distribution and release of, substances of interest to reduce their environmental and health impacts.

2.3.1.2 Standard Setting

Activities under EPA statutes to set standards, such as National Ambient Air Quality Standards (NAAQS), drinking water standards, and pesticides tolerances, to protect human health and the environment against pollutants in the environment, human or animal tissues, food or drinking water.

2.3.1.3 Issue Permits

The issuance of permits, licenses, or registrations to industry or other organizations, pursuant to regulations promulgated under EPA statutes, by EPA or by its partners (states, localities and tribes) to control pollution directly or indirectly.

2.3.1.4 Compliance Assistance

Activities to support regulated entities in voluntarily complying with environmental standards, permits, licenses, protocols or other requirements promulgated under EPA authority.

2.3.1.5 Compliance Monitoring

Actions to monitor compliance with rules, including audits and inspections as well as direct measurement of pollutants or substances of interest in permitted discharges or in the ambient environment.

2.3.1.6 Enforcement

Activities to enforce compliance with Agency regulations through legal means, including criminal investigations and prosecutions.

2.3.2 Non-Regulatory Mechanisms

2.3.2.1 Incentives/Innovations

Implementation of programs or policies that indirectly protect human health and the environment through incentives or other innovative practices that encourage voluntary changes in private or public sector activities.

2.3.2.2 Voluntary Programs

Implementation of programs that directly enlist stakeholders in structured programs to protect human health and the environment on a voluntary basis.

2.3.2.3 Market Mechanisms

The development and use of private markets and market mechanisms to allow the trading of environmentally-related rights to reduce economic burdens of regulatory compliance, reduce pollution loadings, and improve environmental quality.

2.4 Financial Vehicles

Financial Vehicles involve those monetary exchanges or transactions between Federal Government entities as well as between the Federal Government and non-Federal entities as a means of accomplishing a Federal goal or objective.

2.4.1 Federal Financial Assistance

Monetary exchanges or transactions between the Agency and non-federal entities as a means to accomplish an Agency goal or objective.

2.4.1.1 Federal Grants

The disbursement of federal funds by the Agency to a non-federal entity to help fund projects or activities that do not involve substantial federal participation.

2.4.2 Transfers to States and Local Governments

The transfer of federal funds or financial assistance from the Agency to state and local governments and Indian tribes.

2.4.2.1 Formula Grants

The allocation of money to states or their subdivisions in accordance with distribution formulas prescribed by law or administrative regulation, for environmentally-related activities of a continuing nature not confined to a specific project.

2.4.2.2 Project/Competitive Grants

The funding, for fixed or known periods, of specific state or local projects, including fellowships, scholarships, research grants, training grants, traineeships, experimental and demonstration projects, evaluation grants, planning grants, technical assistance grants, survey grants, and construction grants.

2.4.2.3 Earmarked Grants

Earmarked Grants involve the distribution of money to state and local governments for a named purpose or service usually specifically noted by Congress in appropriations language, or other program authorizing language.

3. Support Delivery of Services

All activities to provide the critical policy, programmatic and managerial foundation that facilitates the Agency's delivery of Environmental and Health Protection services.

3.1 Regulatory Process Management

Activities that directly support the formal regulatory development process.

3.1.1 Regulatory Development

Activities to manage the development of rules pursuant to Agency statutes.

3.1.2 Comment

Activities to support the formal docket management and comment solicitation process for public review of proposed Agency actions or policies.

3.1.3 Promulgation

Activities to support promulgation of Agency actions through the Federal Register.

3.1.4 Policy & Guidance Development

Actions to develop policy and guidance to support the implementation of rules.

3.2 Information Life cycle Management

The coordination of information collection processes, information storage, and information dissemination, as well as managing the policies, guidelines, and standards regarding information management.

3.2.1 Information Collection

Activities to support the collection of business information from states, partners, stakeholders and regulated parties, especially in relation to Agency regulatory programs.

3.2.2 Records Retention

Activities to support the processing, integration, and storage of business information prior to use.

3.2.2.1 Policy/Guidelines/Standards

Activities supporting the proper publication, maintenance, storage, and retrieval of policies, standards, and guidelines governing Agency activities.

3.2.2.2 Data Administration

Management of Agency data collection, processing, storage and retrieval.

3.2.2.3 Document Tracking

Activities related to the proper maintenance, tracking, publication, and archiving of official Agency documents.

3.2.2.3.1 Controlled Correspondence

Activities to ensure that controlled correspondence is tracked, recorded, and stored to guarantee compliance with applicable federal requirements and regulation.

3.2.2.3.2 Records Management

Activities related to the policies, procedures and tracking of records of Agency business from creation to eventual archiving.

3.2.2.3.3 Dockets

Management of the Agency's electronic and physical maintenance of regulatory and non-regulatory dockets, including the generation, publication, maintenance, and archiving of documents published by the Agency and comments received from Agency stakeholders.

3.2.2.3.4. Forms Management

Activities to ensure use of standard federal and Agency forms to support effective record keeping and ensure that Federal standard forms are available and used as appropriate to support Federal record keeping requirements.

3.2.3 Information Sharing

Activities to ensure that Agency business information is made conveniently available to the public, partners, stakeholders and regulated parties in suitable forms and formats, including the provision of supporting tools and programs to analyze and interpret that information.

3.2.4 Peer Review

Activities that ensure Agency business information is based on sound science and was developed with the highest quality information available

3.3 Communications and Education

Activities to convey useful information about the environment and related human health issues to parties that need it: occupational groups, students and the public.

3.3.1 Tech Transfer and Training

Programs and projects that provide targeted information to specific stakeholders on technical or scientific topics, or that provide a specific type of training related to Agency responsibilities.

3.3.2 Public Information and Outreach

Programs and projects that provide general information to the public either through ongoing services or in response to specific requests.

3.3.2.1 FOIA

Processes and procedures that ensure compliance with information requests under the Freedom of Information Act.

3.3.2.2 Library Services

Activities to operate agency libraries providing traditional library functions such as access to journals, periodicals, literature searches and online library subscriptions.

3.3.2.3 Provide Public and Agency Web Access

Operations of the Agency's public and intranet web sites (Agency Webmaster).

3.3.2.4 Provide Public Information, Education and Outreach

All other activities that provide information to the public and Agency stakeholders, including support by the Agency of education programs on subjects relevant to the Agency's mission.

3.4 Controls & Oversight

Ensuring that the operations and programs of the Agency and its external business partners comply with applicable laws and regulations and prevent waste, fraud, and abuse.

3.4.1 Program Planning/Design

Activities relating to the planning and design of Agency programs.

3.4.2 Delegation and Partnerships

Activities to manage external relationships related to the conduct of Agency business, including formal legal delegations of authority as well as non-statutory partnerships to advance Agency objectives.

3.4.3 Program Management

Activities to manage non-delegated Agency programs.

3.4.4 Program Analysis

Actions to evaluate and assess Agency programs in relation to their goals, objectives and costs.

3.5 Internal Risk Management & Mitigation

All activities relating to the processes of analyzing exposure to risk and determining appropriate countermeasures.

3.5.1 Contingency Planning

Actions required to plan for, respond to, and mitigate damaging events affecting the Agency's internal processes and assets.

3.5.2 Continuity of Operations

Activities associated with the identification of critical systems and processes, and the planning and preparation required to ensure that these systems and processes will be available in the event of a catastrophic event.

3.5.3 Service Recovery

Internal actions necessary to develop a plan for resuming operations after a catastrophic event.

3.6 Legislative Relations

All activities aimed at the development, tracking, and amendment of public laws through Congress.

3.6.1 Legislative Tracking

Monitoring legislation from introduction to enactment.

3.6.2 Legislative Testimony

Activities associated with providing testimony and evidence in support of, or opposition to, legislation.

3.6.3 Proposal Development

Drafting proposed legislation that creates or amends laws subject to congressional action.

3.7 General Government

General Government involves the general overhead costs of the Federal Government, including legislative and executive activities; provision of central fiscal, personnel, and property activities; and the provision of services that cannot reasonably be classified in any other Line of Business. As a normal rule, all activities reasonably or closely associated with other Lines of Business or Sub-Functions shall be included in those Lines of Business or Sub-Functions rather than listed as a part of general government.

3.7.1 Executive Leadership

The provision of executive leadership to guide Agency programs and provide high-level liaison and communication among within the Agency and across government.

3.7.2 Environmental Justice and Tribal Nations

Promotes the implementation and enforcement of all the health and environmental statutes in areas with minority populations, low-income populations, and Native American tribes. Forecasts, identifies, and addresses disproportionately high and adverse human health or environmental effects of programs, policies, and activities. Limits human and environmental exposure to adverse health or environmental effects. Integrates environmental justice into all programs, policies, and activities consistent with existing environmental laws and regulations. Seeks the meaningful involvement and fair treatment of all communities in the implementation and enforcement of environmental laws.

3.7.3 General Counsel Services

Provision of legal services, through the General Counsel, in matters affecting the operation of the Agency and its relation to other sectors of government and the public.

3.8 Planning and Resource Allocation

Activities to divide EPA's long-term goals into annual increments of progress, determine the resources needed to accomplish these annual results, develop the annual plan and budget, work with OMB and Congress to enact the budget, translate enacted budgets into operating plans, monitoring ongoing activities and take corrective action as appropriate.

3.8.1 Budget Formulation

Activities to prepare Annual Plan and Budget Submission for incorporation into the President's Budget; work with OMB and Congress during the annual appropriations process.

3.8.1.1 Issue Guidance

Process of developing internal policies and guidance that will govern the development and submission of requests for funding. Guidance is issued in the form of a draft budget schedule and budget call letters.

3.8.1.2 Develop Draft Budget

Process of developing the initial budget for review and discussion prior to submission to OMB, the Committee on Appropriations, and other stakeholders.

3.8.1.3 Develop Budget Submission & Testimony

Process of finalizing total budgetary requirements for a given FY, including the development of supporting information on planned activities and associated performance levels.

3.8.1.4 Develop Revised Budget (Mark-up)

Consists of evaluating the budget submitted to the President and developing revisions.

3.8.2 CPIC

Activities to manage the annual capital planning and investment control process under the CCA.

3.8.3 Enterprise Architecture

Activities to create and manage EPA's Enterprise Architecture consistent with the requirements of the CCA.

3.8.4 Project Planning

Activities to create and maintain plans for specific projects and initiatives to ensure proper deployment of resources, organizational accountability, and performance evaluation.

3.8.5 Manage Strategic Plan

Activities to establish and maintain a coordinated strategic planning process that includes goal-based budgeting, scientific and economic analysis, results measurement and accountability; provide quality resources management policies, products and services to both internal and external customers.

3.8.5.1 Develop Strategic Plan

Develop a five-year strategic plan to achieve the Agency's mission to protect human health and the environment. Activities within this process include review existing plan, consult with stakeholders, analyze stakeholder input; and update the strategic plan.

3.8.5.2 Coordinate Goal Planning

Determine what activities program offices will carry out year-by-year to achieve the desired outcomes and how they will measure their performance. Goal planning is a dynamic, flexible process. As EPA works toward its long-range strategic goals, goal planning will help Agency managers make mid-course

correction based on performance feedback, program evaluations, and other information and target resources toward high-priority activities. These corrections would occur as part of the Execute Budget process and as part of all the processes under Provide Financial Management Services.

3.8.5.3 Establish Annual Performance Targets

Define and revise performance targets that can be used to measure performance outcomes of established goals and objectives as they relate to resource decisions approved by OMB.

3.8.5.4 Establish Performance Metrics

Develop performance goals and milestones to measure results and provide a systematic and comprehensive method to monitor results.

3.8.5.5 Monitor Performance

Monitor progress in accomplishing goals developed in the five-year strategic plan to achieve the Agency's mission by measuring performance goals and milestones developed in the establishment of the Agency's performance metrics.

3.8.6 Budget Execution

Activities to develop details to implement the Enacted Budget in each program office and region; adjust goals and objectives as necessary to reflect approved funding.

3.8.6.1 Funds Control

Includes Execute Budget, Monitor Funds Availability, and Execute Operating Plans sub-activities. Ensures adequate control over obligations/expenditures processed, and accurate recording/reporting of all budget execution activity. Supports verifying funds availability at control levels specified in Allocate Funds process (e.g., apportionment and allocations).

3.8.6.2 Establishing Rules

Establishing business rules for processing financial (i.e., commitment, obligation and expenditure) transactions.

3.8.6.3 Establishing/Distributing Funding

Establishing business rules for processing financial (i.e., commitment, obligation and expenditure) transactions.

3.8.6.4 Monitoring Budget Resources/Managing Available Funds

Supports establishment and maintenance of funds control business rules at detailed levels, at or below the level of the operating plans, and the processing of funding request documents based on the established structure.

3.8.7 Workforce Planning

Activities to create and maintain plans for development and deployment of a properly trained and capable Agency workforce.

3.8.8 Security Planning

Activities to create and maintain the Agency's plan to ensure the physical protection of the Agency's personnel, information, facilities and other assets.

3.8.9 Quality Management

Activities to create and maintain the Agency's plan to ensure the quality of information and data required for Agency business.

4. Management of Government Resources

All back-office support activities that enable the Agency to operate effectively.

4.1 Administrative Management

Day-to-day management and maintenance of the internal infrastructure of the Agency.

4.1.1 Provide Facility Services

The provision of basic services for day-to-day operations. Services include but are not limited to the following: facility acquisition, planning, management and maintenance; security; mail, photocopying, property; safety, health and environmental management program policies, management and administrative systems; and transportation management.

4.1.1.1 Acquire and Manage Facilities

Manage the acquisition of facilities, including design, layout, construction, lease and ownership agreements.

4.1.1.2 Acquire and Manage Services

Activities to acquire and manage mail, document reproduction, property and property inventory, transportation and security programs and services.

4.1.1.3 Provide Safety, Health and Environmental Services

Activities to establish and develop internal safety, health and environmental management program policies, management and administrative systems, program models, and operating policies that address the mission-oriented activities throughout the agency at offices, laboratories, field sites, research vessels, and diving operations. Provide assistance and support for the evaluation of working conditions and resolving occupational and environmental risks/hazards including strategies to reduce the agency's internal use of chemicals and its volume of hazardous waste. Conduct on-site investigations, audits and program evaluations of current space as well as new construction, renovation, lease and closure plans to determine compliance with statutory and regulatory mandates. Help develop and monitor corrective actions for program weaknesses. Manage the headquarters safety, health and environmental management program, including the wellness center, health unit, and activities of the labor/management inspection team.

4.1.2 Help Desk

Maintenance and management of a service center to respond to government employees' technical and administrative questions.

4.1.3 Administrative Support

Provides administrative support for EPA including clerical functions such as typing, faxing, mailing, answering phones, keeping calendars, and other support functions.

4.1.4 Security Management

The physical protection of the Agency's personnel, assets and facilities.

4.1.5 Travel

The planning, preparation and monitoring of business-related travel for the Agency's employees.

4.2 Financial Management

Management of the Agency's financial systems and procedures.

4.2.1 Provide Financial Management Services

Activities to ensure that financial transactions are made, recorded, and reported properly and timely; develop reports to document activities; manage financial information systems; maintain cooperative partnerships with state, local, and tribal governments to fund environmental needs.

4.2.1.1 Develop Policies and Guidelines

Activities to develop and maintain sound financial management and accounting policies and procedures; improve existing policies and procedures for cost accounting; ensure that policies are consistent with current laws, rules, OMB circulars, and accounting standards.

4.2.1.2 Manage Environmental Finance Program

Activities to coordinate the Environmental Financial Advisory Board, the Environmental Financing Information Network, and the Environmental Finance Center Network to help communities meet environmental needs.

4.2.1.3 Manage Payments

Activities to provide appropriate control over all payments made by or on behalf of the Agency. The Agency makes payments to vendors in accordance with contracts; to state governments under a variety of programs; to employees for salaries and expense reimbursements including travel; to other federal agencies for reimbursable work performed; to individual citizens receiving federal benefits; to recipients of federal loans; and for many other reasons.

4.2.1.3.1 Managing Payee Information

Process of establishing and maintaining files of payee information, including vendors, employees, government agencies and others as applicable. Includes ongoing process of updating payee files to reflect applicable changes and archiving of historical information in accordance with record retention regulations

4.2.1.3.2 Processing Payment Requests

Process of receiving, preparing invoices/voucher, pre-payment auditing, recording and approving payment requests (i.e., invoices, vouchers, grant payments, legal settlements, etc).

4.2.1.3.3 Scheduling Payments

Process of developing a schedule of payments and remittance information to be submitted (to Treasury, authorized disbursing agencies, third party payments, imprested funds cash, and State Department payments) for disbursement. Schedule is developed based on approved payment transactions, in accordance with Prompt Pay and other relevant requirements. Payments are grouped by payment method, payment type and payment format.

4.2.1.3.4 Completing Payment Activity

Process of performing final review, resolution of payment discrepancies, allocation/reposting of any identified charges, and compilation of comprehensive payment information necessary to meet internal and external reporting requirements.

4.2.1.4 Manage Receipts

Activities to record Agency cash receipts, including servicing and collecting receivables. Receivables are established to account for amounts due from others as the result of services performed by the Agency, delivery of goods sold, the passage of time, loans made to others that must be repaid, or other actions.

4.2.1.4.1 Generating Receivables

Includes activities required to compile and produce a receivable, such as:

Establishing customer record

Recording receivables

Producing bills

4.2.1.4.2 Processing Receipts

The activity of recording, correcting or adjusting receipts and activities associated with depositing funds.

4.2.1.4.3 Performing Collection Activities

The activity of recording, correcting or adjusting receipts and activities associated with depositing funds.

4.2.1.5 Perform Core Financial Management

Activities to operate and maintain the core system consistent with established financial and related laws, regulations, government-wide policy, and best practices. These processes set the framework from which all other core financial management ensures that the procedures for capturing, classifying, communicating, processing, and storing data and transactions are uniform or can translate among various sub-systems as necessary.

4.2.1.5.1 General Ledger Acct Definition/Manage Acct. Class. Structure

Establish, update, and maintain the GL accounts and supporting data elements to ensure compliance with the U.S. Treasury SGL account structure and to support the reporting needs of EPA.

4.2.1.5.2 Manage (Daily) Transaction Activity

Maintain transaction editing and posting rules necessary to record, correct and report the effects of financial transactions accurately, including the accurate recording of journal entries and transactions, and required updates and corrections to GL account balances.

4.2.1.5.3 Reconciliation, Accruals, Closing & Consolidation

Set of processes to close the GL for the ending accounting period, report final results of financial operations and account balances for that period, and prepare accounts for recording of the next period's activity.

4.2.1.5.4 Manage Assets

Acquire, maintain, upgrade, operate, and dispose of both real and personal property cost effectively; monitor and control the life cycle management of property to assure investments and property optimally support organizational objectives.

4.2.1.5.4.1 Acquisition/Receiving

Acquire property (real or personal) in any manner, including purchase or lease or other means such as transfer or fabrication/ construction, and accept in to the organization, which is the point at the organization's obligation, liability, and accountability begins.

4.2.1.5.4.2 Accountability

Maintain an account (record) for property by providing a complete audit trail for property transactions from receipt to final disposition.

4.2.1.5.4.3 Disposition

Removal of property from use and from the property accounting system after physical transfer of property from the organization's accountability.

4.2.1.6 Prepare Financial Report

Activities to prepare timely and useful information to support the management's fiduciary role, budget formulation and execution functions, fiscal management of program delivery and program decision making, and internal and external reporting requirements.

4.2.1.6.1 Report on Financial Operations

Report to external sources on status of budgetary and proprietary accounts (e.g., FACTS I & II) available to support program and procurement activity in one or more FYs.

4.2.2 Support Accountability

Activities to develop and implement a process for analyzing and reporting performance and resource information internally and for stakeholders.

4.2.2.1 Manage Costs

Activities to measure the full costs of programs, and their various elements, activities, and outputs. Cost management is essential for providing accurate program measurement information, performance measures, and financial statements with verifiable reporting of the cost activities. This process includes cost setup and accumulation; cost recognition; and cost distribution.

4.2.2.1.1 Define Cost Structure

Establishes the accounts and data elements that serve as the basis against which cost data is recorded and reported, in accordance with Federal regulations, policy, and departmental priorities and requirements. Provides the capability to add new elements on a go forward and retroactive basis. This

structure should be appropriately linked with or mapped to the budget or funding structure, strategic objectives, and performance goals to allow comparative reporting and analysis.

4.2.2.1.2 Recognize Cost

Supports attribution of costs based on when and where they are incurred. Costs must be recognized by reporting period (e.g., year, quarter, month, day), by designated elements of the cost structure, and must support adequate levels of detail to meet the requirements defined by the Department and its components [e.g., organization code, object class, budget activity, strategic planning goal, Fed/non Fed (county, state/local, vendor, Grantee), etc.]

4.2.2.1.3 Accumulate Cost

Allows for the collection of recognized costs data, as well as required non-financial data, on a recurring basis (e.g., daily, monthly, quarterly, annually, multi year, project, etc.). Supports the calculation of fees (e.g., reimbursable agreements, user fees) or total costs of defined programmatic activities/services.

4.2.2.1.4 Distribute Cost

Supports identification of direct and indirect costs. This involves assigning direct costs and allocating indirect costs to appropriate cost objects, or responsibility segments or centers.

4.2.2.1.5 Define Work Activities

Provides current and historical cost information to related functions. Supports mandatory (Statement of Net Cost, Income Statement, etc.,) and management defined reporting and analysis at any level of detail captured.

4.2.2.2 Produce Annual Performance Report

Activities to produce the Annual Report to document Agency activities and performance, document performance results for each of EPA's goals, address management accomplishments and challenges, develop Agency financial statements, maintain supporting documentation, and work with the Inspector General to resolve potential audit issues and obtain unqualified audit opinions.

4.2.2.3 Manage Audits

Activities to track audit recommendations and issues raised by the Office of the Inspector General, work with the Inspector General to resolve potential audit issues and obtain unqualified audit opinions, and ensure that appropriate actions are taken in a timely fashion.

4.2.3 Provide Contract & IAG Management

Activities to award and manage contracts and IAG to acquire goods and services to meet Agency needs.

4.2.3.1 Award Contracts and IAG

Activities to establish contracts and IAG by determining opportunities, making them public, funding, evaluating and awarding them.

4.2.3.2 Manage Contracts and IAG

Activities to prepare award documentation with proper signatures and financial obligations. Perform multi-level reviews of documentation, as appropriate, prior to award. Assure that only authorized persons sign award and financial documents.

4.2.3.3 Provide Contract and IAG Training

The process of conducting activities to increase employee skills and competency levels as needed to enhance their productivity and value to the organization as contract or IAG specialists or project officers.

4.2.3.4 Issue Contract and IAG Policies, Procedures, Guidance

Establish and maintain Agency-specific policies, procedures and guidance with respect to contract and IAG issuance.

4.2.3.4.1 Analyze Federal /Commercial Environment

Activities to analyze laws, rules, regulations and external guidance to determine internal implementation requirements.

4.2.3.4.2 Develop Internal Policies, Procedures, Guidance

Activities to prepare draft Agency policies, procedures, and guidance; solicit comments; and issue final documents.

4.2.3.4.3 Publicize Policies, Procedures, Guidance

Activities to distribute the Agency's policies, procedures and guidance to the workforce and public so that they are widely known and available.

4.2.3.4.4 Provide Information and Reports

Activities to prepare timely and useful information to support reporting requirements and management decision making. This includes both external reporting to the public and other government agencies, as well as EPA internal management reporting. This also includes actions to provide contract and IAG data to report activity, evaluate program performance, and track workload.

4.2.3.4.5 Develop & Manage Information Management Systems

Activities to develop, maintain, and manage the applications that use contract or IAG information and execute contract or IAG business processes.

4.2.4 Provide Grants Management

Activities to award and manage grants to ensure that recipients use direct monetary assistance to protect or improve public health or the environment.

4.2.4.1 Award Grants

Activities to award grants by determining opportunities, making them public, evaluating applications, providing program approval and funding, completing administrative review, assigning terms and conditions, obligating the award and offering the award to the applicant.

4.2.4.2 Provide Post Award Management

Activities to monitor progress in accomplishing the objectives of the grant, as well as compliance with fiscal, programmatic and administrative requirements to ensure accountability and effective management.

4.2.4.3 Provide Grant Training

The process of conducting activities to increase employee skills and competency levels as needed to enhance their ability to manage grants.

4.2.4.4 Issue Policies, Procedures, Guidance

Activities to establish and maintain grants policies, procedures and guidance.

4.2.4.4.1 Analyze External Directions & Trends

Activities to analyze laws, rules, regulations and external guidance to determine internal implementation requirements for grants policies and guidance. Participate in government-wide efforts to streamline and develop grant policies or procedures.

4.2.4.4.2 Develop Internal Policies, Procedures, Guidance

Activities to prepare draft Agency grant policies, procedures, and guidance; solicit comments; and issue final documents.

4.2.4.4.3 Publicize Policy, Procedures, Guidance

Activities to distribute the Agency grant policies, procedures and guidance to the workforce and public so that they are widely known and available.

4.2.4.4.4 Provide Reports & Information

Activities to prepare timely and useful information to support reporting requirements and management decision making, including development and maintenance of databases, preparation of files and data sets, as well as hard copy reports. This includes both external reporting to the public and other government agencies as well as EPA internal management reporting. Finally, it provides grant data to report activity, evaluate program performance and track workload.

4.2.4.4.5 Develop & Manage Information Management Systems

Activities to develop, maintain, and manage the applications that use grants information and execute grants and suspension and debarment business processes.

4.2.4.4.6 Evaluate Policy Compliance

Activities to evaluate activities and reports of activities to determine if grant policies are being implemented within grant offices and in program offices.

4.2.4.5 Suspend and Debar Grantees

A legal process to restrict a recipient from receiving a grant or award in the future from any agency based on the applicant's history of misuse of previously awarded money.

4.3 Human Resources Management

Activities to conduct human resource and organizational processes that: 1) define and establish organizational workforce requirements; 2) develop and maintain organizational policies, procedures and guidance; and 3) recruit, hire, train, deploy and retain people to accomplish the Agency's mission.

4.3.1 Acquire Personnel

The process of identifying and attracting qualified individuals to fill specific positions within the organization.

4.3.1.1 Determine Job Requirements

Activities to assess knowledge, skills and abilities needed to perform specific duties and tasks.

4.3.1.2 Advertise Positions

Activities to publish job requirements and application procedures to solicit interest from potential candidates.

4.3.1.3 Evaluate Applications

Activities to review applicant qualifications against job requirements to determine eligibility and relative rankings. This includes review of applications and personal interviews.

4.3.1.4 Hire Personnel

Activities to select best qualified individual(s), make official offer of employment and confirm acceptance, and initiate hire transaction.

4.3.2 Develop Personnel

The process of conducting activities to increase employee skills and competency levels as needed to enhance their productivity and value to the organization.

4.3.2.1 Determine Training Needs

Activities to assess competencies required for performance of Agency work and for accomplishing specific job requirements.

4.3.2.2 Acquire/Develop Training

Activities to design or procure training activities based on identified training needs.

4.3.2.3 Administer Training Activities

Activities to arrange for delivery of training activities in support of identified needs. Process includes requesting, approval, registration, and scheduling.

4.3.2.4 Conduct Organization Development

Activities to develop and administer interventions and assessments to increase organizational effectiveness and efficiency.

4.3.3 Manage Personnel

The process of performing personnel actions and managing labor relations, staff performance, and workplace initiatives.

4.3.3.1 Administer Benefits

Activities to administer processes and services to ensure that employees can obtain available benefits. This includes conducting open seasons (health/life/retirement), administering ongoing enrollments for health/life/retirement, and promoting employee awareness.

4.3.3.2 Manage Labor Relations

Activities to establish and maintain processes and forums for partnerships, negotiations and dispute resolutions between unions and management.

4.3.3.3 Manage Employee Relations

Activities to administer processes and services to assist employees and managers with resolution of individual employment related issues and problems.

4.3.3.4 Manage Performance

Activities to administer a process to provide for the review, assessment and acknowledgment of employee accomplishments and performance in meeting specific job requirements. This includes: establishing performance review process, administering incentive awards, and processing disciplinary actions.

4.3.3.5 Perform Personnel Actions

Activities to submit, receive, accept and perform the requests for actions that officially change the status of employees. Maintain the official record of personnel action. Submit, receive, accept and perform the requests for actions that officially change the status of employees. Maintain the official record of personnel action.

4.3.3.6 Administer Workplace Initiatives

Activities to manage programs and activities to provide added workplace and employment flexibility and incentives for employees.

4.3.3.7 Manage Security Clearances

Activities to manage the process of ensuring that Agency employees, contractors, and others have been approved to enter Agency buildings, utilize Agency resources, and access the Agency's sensitive information. This includes: determining eligibility, issuance of badges, clearance tracking and security verification.

4.3.3.8 Provide Payroll & Expense Reimbursements Management

Activities to determine the compensation of Agency employees and manage the expense reimbursement policies.

4.3.3.9 Skills and Competency Management

Activities to capture and maintain information related to the skills and competencies of Agency Personnel.

4.3.4 Manage Organizations & Positions

Activities to determine organizational entities and relationships and associated functions.

4.3.4.1 Manage Organizations & Positions

Activities to create, maintain and populate an organizational structure and associated positions as necessary to accomplish organizational missions and objectives.

4.3.4.2 Establish and Maintain Organization Structure

Activities to determine the number and types of positions necessary to accomplish work of organization.

4.3.4.3 Manage Workforce Levels

Activities to assess future workforce needs, plan future workforce structure, and manage the current workforce against current workforce ceilings.

4.3.5 Issue Policies, Procedures & Guidance

Activities to establish and maintain Agency-specific policies, procedures and guidance.

4.3.5.1 Analyze External Directives

Activities to analyze laws, rules, regulations and external guidance to determine internal implementation requirements.

4.3.5.2 Develop Internal Policies, Procedures & Guidance

Activities to prepare draft Agency policies, procedures, and guidance; solicit comments; and issue final documents.

4.3.5.3 Manage Policies, Procedures & Guidance

Activities to review and update guidance on a routine or as-needed basis to ensure it remains current.

4.4 Technology Management

The coordination of IT resources and systems required to support or provide a citizen service.

4.4.1 Change Management (TACM)

The processes that facilitate a smooth evolution, composition, and workforce transition of the design and implementation of changes to agency resources such as assets, methodologies, systems or procedures.

4.4.2 IT Systems and Applications Development

Activities associated with the in-house design and development of IT systems and software applications.

4.4.3 IT & Data Services Management

Activities to perform analysis, design, development, implementation, and operations and maintenance of technical solutions for Agency data.

4.4.3.1 Data Warehousing

Activities to provide database administration and management services for warehousing of Agency critical data, including backup and recovery, security administration, storage management, performance tuning, data administration and installation and upgrade services.

4.4.3.2 Decision Support Tools

The provision of applications and tools for decision support analytics on an enterprise basis.

4.4.4 IT Infrastructure

The planning, design and maintenance of an IT infrastructure to effectively support automated needs (e.g., platforms, networks, services, printers).

4.4.4.1 Perform Operations Support Services

Activities to perform day-to-day operations and maintenance support functions, including help desk functions, for Agency systems, data, and major infrastructure components.

4.4.4.2 Technology

Activities to provide mainframe, supercomputer and central client-server computational services and support. Provide LAN system administration, including maintenance and enhancement activities.

4.4.4.3 Desktop

Activities to provide desktop support, including maintenance and enhancement services.

4.4.4.4 Telecom

Activities to provide agency voice, data and video connectivity, including basic telephone service, long distance services, Gov Phone Card, local area networks, metropolitan area networks, wide area networks, and Internet/intranet services/access. This support includes planning, budgeting, acquiring, installing, maintaining and operating the telecom networks.

Appendix D Volume Statistics for Financial Management Applications

This appendix describes the current volume of transactions and number of users for 17 of the applications supporting EPA's financial management functions.

Table D-1. Volume of Key Transactions and Number of Users

Application Name	Key Transactions	Number of Users	EPA BRM Sub-function
Asbestos Receivable Tracking System (ARTS)	▪ 4,000-5,500 transactions per FY	▪ 4 (used at LVFC only) ▪ Power Users: 50% ▪ Casual Users: 50%	▪ Manage Receipts (4.2.1.4)
Bankcard Payment System	▪ Bankcard commitments (RQ's) ▪ Bankcard obligations (BC's) ▪ Bankcard payments (BV's). ▪ Processes 106,000 Purchase Card Transactions annually	▪ EPA's Purchase Card Holders (approximately 1,200) and the Cincinnati Finance Center.	▪ Manage Payments (4.2.1.3)
Budget Automation System (BAS)	▪ Ten of thousands per year batch and real-time data entry ▪ 13 million rows of raw data (data import from FDW) transformed to 250,000 BAS records	▪ 450 ▪ Power Users: 10% ▪ Casual Users: 90%	▪ Budget Formulation (3.8.1) ▪ Manage Strategic Plan (3.8.5) ▪ Budget Execution (3.8.6)
Cost Allocation	▪ Cost allocation transactions	▪ 5	▪ Manage Costs (4.2.2.1)
Contract Payment System (CPS)	▪ Obligation documents processed 8,691 ▪ Obligation lines processed 90,000 ▪ Payment documents processed 35,455 ▪ Payment lines processed 125,600 ▪ Superfund Site Redistributions 8,000	▪ 30 (used at RTP Finance Center only) ▪ Power Users: N/A (user access restricted by job function) ▪ Casual Users: N/A (user access restricted by job function)	▪ Manage Payments (4.2.1.3)
Fellowship Payment System (FPS)	▪ Stipend Payments 2,949 ▪ Tuition Payments 649 ▪ Expenses and Book Payments 279	▪ 2 (used at LVFC only): 1 primary, 1 backup ▪ Power Users: N/A (user access restricted by job function) ▪ Casual Users: N/A (user access restricted by job function)	▪ Manage Payments (4.2.1.3)

Application Name	Key Transactions	Number of Users	EPA BRM Sub-function
Grant Payment Allocation System (GPAS)	▪ ASAP Payments 33,000 ▪ Manual Grant Payments 12,500	▪ 12 (used at LVFC only) ▪ Power Users: N/A (user access restricted by job function) ▪ Casual Users: N/A (user access restricted by job function)	▪ Perform Core Financial Management (4.2.1.5)
Inter-Agency Document Online Tracking System (IDOTS)	▪ 15,000 Payments from IPAC ▪ 5,300 Miscellaneous Payments (I.e. Federal Register Printing, etc.)	▪ 17 (used at CFC only) ▪ Power Users: N/A (user access restricted by job function) ▪ Casual Users: N/A (user access restricted by job function)	▪ Manage Payments (4.2.1.3)
Integrated Financial Management System (IFMS)	▪ Grants and Contract Issued 15,000 documents ▪ Purchase Orders Issued 120,000 documents ▪ Active Vendors 200,000 ▪ Outstanding Obligations (prev. FY) 400,000 ▪ GL Acct Balances (previous FY) 175,000 records (balances for GL account in each FY and for each BFY and Fund code) ▪ GL transactions per year 14 million records	▪ 1,000 ▪ Power Users: 30% (Finance Office Users) ▪ Casual Users: 70% (Program Office Users)	▪ Perform Core Financial Management (4.2.1.5) ▪ Manage Receipts (4.2.1.4) ▪ Manage Costs (4.2.2.1) ▪ Manage Assets (4.2.1.5.4) ▪ Reporting and Information ▪ Budget Execution (3.8.6)
Integrated Resource Management System (IRMS)	▪ Real-time submission of commitments to IFMS of approximately 150 per day. ▪ Nightly downloads of budget execution (DCN level) and operating plan data from IFMS and MARS (total of approximately 1.2 million records each night). ▪ Numerous budget formulation/opplan revisions on an ongoing basis.	▪ 150	▪ Perform Core Financial Management (4.2.1.5) ▪ Reporting and Information ▪ Budget Formulation (3.8.1) ▪ Manage Strategic Plan (3.8.5) ▪ Budget Execution (3.8.6)

Application Name	Key Transactions	Number of Users	EPA BRM Sub-function
Office of Pesticides Program Information Network (OPPIN)	▪ 3,792 PRIA related receipts have been processed. Of those, 1,574 fees have been received.	▪ 1,000 total users throughout EPA. 90-95% from OPP Headquarters staff and the remaining from EPA Regional staff.	▪ Manage Receipts (4.2.1.4)
Property Management Database (PMD)	▪ Daily pull from IFMS	▪ When system is launched in July, there will be about ~ 800 users ▪ Power Users: 10% ▪ Casual Users: 90%	▪ Manage Assets (4.2.1.5.4)
Property Management Database (PMD)	▪ Daily pull from IFMS	▪ When system is launched in July, there will be about ~ 800 users ▪ Power Users: 10% ▪ Casual Users: 90%	▪ Manage Assets (4.2.1.5.4)
Payroll Labor Distribution (Payroll LD)	▪ Batch peak day items processing, including 19,000 paychecks, 50,000 pay earnings records, and 50,000 T&A Sheet line items	▪ 19,000 T&L users of PPL ▪ 195 concurrent users for 10 minute intervals during a 13-hour day ▪ 13,000 users on the East Coast ▪ 250 HR department users and 2000 managers	▪ Manage Costs (4.2.2.1)
Strategic Lease and Asset Tracking Enterprise (SLATE)	▪ If there was an interface, < 100 per year	▪ ~ 30 ▪ Power Users: 10% ▪ Casual Users: 90%	▪ Budget Formulation (3.8.1) ▪ Manage Strategic Plan (3.8.5) ▪ Budget Execution (3.8.6)
Small Purchase Information Tracking System (SPITS)	▪ RTP payments 32,345 ▪ CINCY payments 298 ▪ WFMC payments 7,020	▪ 33 at RTP and 17 (Inquiry Only) at WFMC ▪ Power Users: N/A (user access restricted by job function) ▪ Casual Users: N/A (user access restricted by job function)	▪ Manage Payments (4.2.1.3)

Application Name	Key Transactions	Number of Users	EPA BRM Sub-function
Workload Billing System (WBS)	▪ Each month WBS calculates a revenue transaction to record the sales. As a result, approximately 100 records are posted to IFMS each month. ▪ Each month WBS calculates an accounts receivable transaction that contains approximately 200 transactions per month (one per service agreement/unbilled account which is posted to IFMS each month to draw down from customer accounts). ▪ Each month WBS processes detailed service consumption records and records the transactions. Approximately 215,000 records were processed in the most recent billing. These transactions are used in static PDF reports and made available to the agency via EPA intranet.	▪ WBS has a limited user base that consists of approximately 11 analysts and programmers.	▪ Manage Receipts (4.2.1.4) ▪ Manage Costs (4.2.2.1) ▪ Reporting and Information

The following additional volume statistics are provided for IFMS.

Table D-2. IFMS Volume Statistics[7]

Type of Transaction	Volume
Requisitions	437,212
Obligations	1,869,858
Payments[8]	3,057,824
Receivables	191,288
Collections	250,778
Manual & Automated Interface Journal Vouchers (includes accruals)[9]	3,048,938
Travel Vouchers	2,815,902
Other Transactions	15,938,999
Active & Inactive Vendor Banking Records[10]	172,289
Active & Inactive Employee Banking Records[11]	67,808

[7] These are the counts for all transactions (document line counts) updating the general journal for 2004 (15 accounting periods). The document line counts are the unique combination of transaction code, document number, account code, budget object code, general ledger account, and amount (debit and credit).
[8] IFMS does not track invoices so the count is for payments only.
[9] Journal entries include manual entries and accrual entries which are uploaded into IFMS.
[10] IFMS does not use the "active/inactive" indicator so this is a total of all active and inactive records currently in IFMS.
[11] IFMS does not use the "active/inactive" indicator so this is a total of all active and inactive records currently in IFMS.

Appendix E Information Class and Subclass Definitions

1. Financial Data

Scope: Agency information collected for determining expenditures.

1.1 Funds Management

Definition: Funds Management activities capture the highest level of financial data and summarize and maintain account balances by fund structure. Funds Management is also the primary tool for carrying out the Agency responsibility of establishing a system and maintaining official records for ensuring that it does not obligate or disburse funds in excess of those appropriated and/or authorized. Information capturing processes involved with Funds Management include budget preparation, budget formulation, funds allocation, budget execution and funds control. Examples: Annual Financial Statements, GL, Congressional Justification, and Operating Plan.

1.1.1 Account Structure

Definition: A string of data elements used for the accurate classification and reporting of the effects of financial transactions. In EPA, this consists of a budget FY, fund code, organization funding the transaction, the program, and codes used for cost accounting for some funds and organizations.

1.1.2 Appropriation

Definition: An act of Congress that enables Federal agencies to spend funds for specific purposes.

1.1.3 Audit Findings

Definition: Auditor opinions and related reportable findings of the audit process regarding the state of accounts, internal and management controls, and financial systems of the audited organization.

1.1.4 Audit Action Plan

Definition: Formal or informal response to findings resulting from the audit, inquiry, or other review.

1.1.5 Available Funding

Definition: The balance of funding available at a specific time for a specific requirement.

1.1.6 Budget

Definition: An itemized listing of the amounts authorized to an organizational level of the Agency. In EPA, this may be at the RPIO, allowance holder, operating plan, or sub-allowance levels.

1.1.7 Document Control Number

Definition: A code assigned within the Program Offices to track the initial event in the spending chain and, through linkages, to subsequent accounting events.

1.1.8 FTE Information

Definition: Data on actual or accrued time incurred by employees expressed in either hours or full time equivalents of a yearly work schedule. The budget will include amounts for authorized FTEs.

1.1.9 GL Account

Definition: A record of financial transactions including journals and trial balance. Includes the special attributes identified within the structure to report data required by external parties.

1.1.10 Transaction Code

Definition: An abbreviated format for the designation of the specific GL accounts to be impacted by a transaction. Based upon the fund indicator in the Account Structure, different GL impacts can be produced based upon a common input by the user.

1.1.11 User Charge Information

Definition: Information on credit card charges received from authorized users to review the credit card statement and to allocate charges using the Account Structure.

1.2 Obligations and Commitments

Definition: Obligations reflect amounts of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. Such amounts will include outlays for which obligations have not been previously recorded and will reflect adjustments for differences between obligations previously recorded and actual outlays to liquidate those obligations. A commitment is an administrative reservation of an allotment or of other funds in anticipation of their obligation. Examples: Contracts, Service Agreements, etc.

1.2.1 Approval

Definition: An action that prevents further changes from being made to a transaction. This may be the locking of a file from further changes, an electronic signature, or the transmittal of a data file.

1.2.2 Commitment

Definition: A reservation of funds for anticipated obligations. It includes the actions to liquidate this reservation through referencing of the subsequent transaction in the spending chain.

1.2.3 Obligation

Definition: An established order for goods/services to be delivered at a future time. It includes the process to track the status of the obligation from inception through final payment or adjustment. Specific types of obligations are Contract, Purchase Order, and Travel Order.

1.2.4 Purchase Order

Definition: The final version of the purchase documentation which reflects the goods or services to be acquired, vendor/vehicle decisions, confirmation of available funds, and the approval of appropriate authority. It serves as the authority to initiate the recording of funds obligated.

1.2.5 Travel Order

Definition: An obligation document for travel to be incurred.

1.3 Payment Management

Definition: The Payment Management function provides data and appropriate control over all payments made by or on behalf of the agency. EPA makes payments, for example, to vendors in accordance with

contracts; to state governments under a variety of programs; to employees for salaries and expense reimbursements; to other Federal agencies for reimbursable work performed; to individual citizens receiving Federal benefits; and to recipients of Federal loans. Payments are made to vendors, state governments, employees, other Federal agencies, individual citizens, and Federal loan recipients. Examples: Earnings and Leave Statements, Disbursement Reports, etc.

1.3.1 Accounts Payable

Definition: An amount due and payable by EPA for a valid liability.

1.3.2 Bill

Definition: Notification/request for payment with itemized charges and account information.

1.3.3 Credit Card Statement

Definition: Statement provided by a credit card vendor detailing charges processed on behalf of the cardholders to include information on associated payee, item, and other data necessary to identify the charges. The actions to relate the charges to the account structure are included under User Charge Info.

1.3.4 Invoice

Definition: Internal or external request for payment by a vendor for goods or services delivered to the Agency.

1.3.5 Payment Schedule/Info

Definition: Schedule of check and payments submitted to Treasury for disbursement on behalf of EPA. This includes all associated information on the payments such as check number, confirmation data.

1.3.6 Travel Advance

Definition: A payment for travel expenses prior to the actual travel occurring.

1.3.7 Travel Voucher

Definition: The documentation presented by an employee requesting payment of travel expenses and itemizing travel charges incurred.

1.3.8 Vendor

Definition: Outside parties being paid by EPA including grantees and other Federal agencies.

1.4 Receipt Management

Definition: Receipt Management encompasses activities and the management of data that includes recording agency cash receipts and servicing and collecting receivables. A record of receivables are established to account for amounts due from others as the result of performance of services by the agency, delivery of goods sold, the passage of time (e.g., interest earned), or other actions. Processes included in the receipt management function provide a record of data for the establishment of receivables, the management of receivables, collections and offset processes. Examples: Collection Reports, Cash Receipts, etc.

1.4.1 Customer

Definition: One that purchases a good or service from EPA and owes EPA money.

1.4.2 Earned Revenue

Definition: Income realized by the provisioning of goods and services for businesslike activities such as the WCF.

1.4.3 Receipt Information

Definition: Information from the debtor or other party relating to the collection of funds due. This could be a liquidation of a bill or the receipt of earned or advanced revenue.

1.4.4 Receivable Account

Definition: An account or record used to track the amounts owed to EPA for goods or services provided to customers. It includes follow-up actions to secure the collection of the amounts due. The initial and subsequent document to obtain the funds is the bill with earned revenue representing the collection of the receivable.

1.4.5 Receiving Document

Definition: Documentation providing information to confirm the receipt of goods and services.

1.5 Cost Accounting

Definition: The Cost Accounting function provides data that measures the total cost of EPA programs, and their various elements, activities and outputs. Cost Accounting provides accurate program management information, performance measures, and financial statements with verifiable reporting of the cost of activities. The term “cost” refers to the monetary value of resources used or sacrificed or liabilities incurred to achieve an objective, such as to acquire or produce a good or to perform an activity or service. A “cost object” is any activity, output or item whose cost is to be measured. Cost Management processes include data on cost setup and accumulation, cost recognition, cost distribution, and working capital and revolving fund. Examples: Superfund cost recovery documentation, indirect cost allocations, cost distribution accounts, labor distribution accounts.

1.6 Asset Management

Definition: The management of assets assures that all PP&E that are likely to have future financial benefits will have its costs measured reliably. Asset Management consists of the valuation of capital equipment, items pledged as security, historical cost amounts of revalued assets, changes in revaluation surplus, and depreciation. Examples: Capital Asset Inventory.

1.6.1 Physical Asset Accounting

Definition: Reviewing and determining asset classification, collecting asset costs, and reviewing/determining the depreciation life and method. It includes the recording of the asset and depreciation into data records as well as the physical inventory count, audit, or physical changes to an asset.

2. Human Assets Data

Scope: Information associated with EPA positions and EPA and non-EPA employees.

2.1. Person

Definition: Information that establishes the personal identity of an EPA or non-EPA employee. Also includes the discretionary personal information provided by EPA employees and other users of Agency resources. Examples: Name, Address, SSN, Phone, Education Level, Age, Marital Status, Emergency Contacts, Licenses, Height, Weight, Sex, and Race.

2.1.1 Employee

Definition: Strictly a person being paid a salary by EPA.

2.2. Position

Definition: Information that distinguishes a position or class of positions and corresponding reporting relationships. Example: Title, Series, Grade, Organization Code, Duty Station, Position Number, and Bargaining Unit.

2.3. Business Card

Definition: Information used to locate or describe an EPA or non-EPA employee. Includes all the information customarily included on a business card. Example: Job title, organization, business address, e-mail address, business telephone numbers, employee ID.

2.4. Human Resources (HR)

Definition: Information required to support Human Resources business processes. It includes Certifications, Performance, Awards, Competencies, Service Computation Date, Leave Category, and Veteran's Preference.

2.5. Information Technology Access Information

Definition: Information used to determine an EPA or non-EPA employee's right to access Agency network and computing resources. Examples: User Class, Organizational Role, and User ID.

3. Capital Assets (Property) & Services Data

Scope: Information pertaining to the tracking of EPA's physical assets to include information on assets, location, property number, serial number, maintenance record, and owner.

3.1 EPA Facility

Definition: Information regarding the tracking of EPA's facility assets. This would include information on the facility's real estate, equipment and other fixed/high value/controlled assets such as location, square footage, lease information, problems, costs, floor plans, amenities available, maintenance records, accountable property and environmental characteristics. Examples: Building Alteration Information, Information on Facility Leases, EPA Facility Locations, Information on Facilities (square footage, floor plans, FTE), B&F Submissions, Training Site Information, Building Trouble Call Information (hot/cold, bugs, etc.), Information on Physical Security, Usage/Reservations/Scheduling, Local Security Devices, and Safety and Health Facility Audit Findings.

3.2 Equipment

Definition: Information pertaining to the tracking of EPA's physical assets. Would include information on assets, where they are located, property number, serial number, maintenance associated, and owner.

Examples: U-Drive Vehicle, Audio Visual Loans, Capital Equipment, Headquarters Shared Photocopier (maintenance, supplies, etc.), Headquarters Vehicle Fleet, Warehouse Property, Property Disposal, Request for Shipping, Systems Inventory, and Reservation/Scheduling logs.

3.3 Services

Definition: Information created in generating and approving a request for service, major steps in performing services, and verification of dates of completion and acceptance. Subclasses: Services Requested, and Services Tracked.

4. Program Management Data

Scope: Descriptive information defining EPA environmental programs and their environmental results. Programs include administrative and measurement systems on air, land, water, waste, and toxic management and administration.

4.1 Program

Definition: Information about the structure, function, and activities or initiatives within the Agency, is not limited in scope or interest to a single Agency program. The Agency's major programs are run by National Program Managers (NPMs). EPA's accounting structure captures actual expenditures and costs by goal, objective, and sub-objective, NPM, program, and project.

4.1.1 Descriptor (Program Title), Authorizing Legislation, CFR (Regulations), Appropriations, Goals and Objectives

4.1.2 Structure (Organizational Location, Management, Resource Organization)

4.1.3 Activity (Projects, Outcome, Reports and Schedules, Document and Records)

Definition: A specific activity or project as listed in the program and financing schedules of the annual budget of the United States Government.

4.1.4 Performance Measure

Definition: A performance goal or performance indicator.

4.2 Planning and Performance Information

Definition: Information about planning and program measurement data collection activities and resulting performance measurement information.

4.2.1 Goals

Definition: A goal defines how an agency will carry out its mission over a period of time. Goals are expressed in a manner that allows a future assessment to be made of whether the goal was or is being achieved. The goal may be of a programmatic, policy, or management nature.

4.2.2 Plans

Definition: A detailed formulation of a program of action.

4.2.3 Policies

Definition: A defined course or method of action to guide and determine decisions Other Examples (Mission and Vision Statements, Performance Goals, Objectives, Program Evaluations, and Performance Indicators).

4.3 Organization

Definition: An administrative and functional structure designed to achieve or support achievement of specified goals and objectives. EPA's headquarters program offices, 10 regional offices, and 17 labs across the country. The Administrator, who is appointed by the President of the United States, leads EPA. EPA's account structure classifications summarize the Agency's organizational structure. Examples: Functional Statements, Organizational Charts, Staffing Patterns, and Delegations of Authority.

5. Acquisition Assistance Data

Scope: Awardee information, contracts, grants, interagency agreement awards, grant guidance, and grant application information.

5.1 Funding Vehicle

Definition: Information should include contracting/grants/interagency agreement number, recipient, contractor/grantee/Federal agency, dollar amount, date of award, performance period, authorities, budget codes including GPRA goal codes, project officer (EPA), program office, project manager, contractor/grantee/Federal agency, grants/contract specialist, contracting officer, award official (grants), contracting/grants/interagency agreement location, and description of project.

5.1.1 Extramural Vehicle

5.1.2 Simplified Acquisitions

5.1.3 Government-Wide Acquisition Contracts (GWAC)/ Federal Supply Schedule (FSSC) Contracts

5.1.4 Assistance Awards

5.1.5 Bankcard

5.1.6 Interagency Agreement

Subclasses: Extramural, Contract, GWAC/GSA, Grant, Interagency Agreement. Examples: Extramural Vehicles, Simplified Acquisitions, Government-Wide Acquisition Contracts (GWAC)/GSA FSSC Contracts, Assistance Awards, and Bankcards.

5.2 Business Partner

Definition: Organizations that receive grants, signatories of contracts, and interagency agreements.

5.2.1 Grant

Definition: A financial assistance instrument, which provides money and/or direct assistance to the recipient to carry out a public purpose instead of acquiring property or services for the Federal government's own use. It includes cooperative assistance agreements in which the Agency's participation and direction level is increased.

5.2.2 Contract

Definition: A mutually binding legal agreement between two or more persons or parties: especially one legally enforceable, a business arrangement for the supply of goods or services, or a document describing the terms of the agreement.

5.2.3 Business Partner Interagency Agreement

Definition: Federal agency information identifies the agency name, address, telephone number and payment information as well as information on the organization conducting the work if it is other than the Federal agency (i.e., a contractor). Examples: Business Partner Grant, Business Partner Contract, and Business Partner Interagency Agreement.

Appendix F User Classes

The new core financial management system will require multiple user classes to establish groups within the user community for establishing target audiences, coordinating integration, and establishing access rights in the core financial management system. In general, a principal of separation of duties should be implemented to prevent one user from having the ability to perform all steps in a financial transaction and to control how users access data among and between the EPA organizations. In addition, it is envisioned that security levels will be created to segment access rights to financial data belonging to different organizations. Within each organization multiple types of access rights are envisioned.

Table F-1 gives a preliminary list of future user classes applicable to the envisioned Financial COTS system.

Table F-1. Potential User Classes

User Class	Description
Funds Control Officers	This user class requires access to financial information as it pertains to their program(s). This user class will have transaction level access to the system based on their roles and responsibilities within the finance and accounting area.
Finance Center Staff	This user class requires wide ranging access to financial information in order to process financial/accounting transactions within the system. This user class will have transaction level access to the system based on their roles and responsibilities within the finance and accounting area.
Program/Financial Managers	This user class is primarily users of information generated by the system and captured at the program level. Program managers will require read-only access to financial, accounting, and budget information. Program managers will require the ability to view and generate standard and ad-hoc financial management reports.
Internal Inquiry	This user class provides read-only access to support management needs.
External Inquiry	This user class includes external users or organizations that may require limited, secure, read-only access to financial, accounting, and budget information.
Interface Users	This user class has the ability to access financial and accounting information via other programs that have interfaces with the financial system. This user class will require limited access to data relevant to information being exchanged between the core financial and interface system and all information affected by the interface.
Help Desk	This user class requires limited access to the financial system to enable them to assist financial managers, program managers, and external users in solving general hardware problems, functionality problems, and system access problems.
Systems Administrator	This user class has the ability to define functional access rights (e.g., to modules, transactions, approval authorities) and data access rights (e.g., record create, read, update and delete) by assigned user ID, functional role (e.g., payable technician) and owner organization. Additionally, this user class has the ability to assign multiple levels of approval to a single user, but prevent that user from applying more than one level of approval to a given document in order to conform to the principle of separation of duties. Finally, this user class has the ability to restrict access to sensitive data elements such as social security numbers and banking information by named user, groups of users, or functional role.
Technical Operations	This user class has responsibility for table maintenance, management of system interfaces, and other aspects of system operations.

Appendix G Acronyms

Acronym	Definition
ACH	Automated Clearing House
ADAM	Administrative Data Mart
ADW	Administrative Data Warehouse
ALC	Agency Location Code
AMS	American Management System
AO	Administrator's Office
APG	Annual Performance Goals
APM	Annual Performance Measures
ARTS	Asbestos Receivable Tracking System
ASA	Administrative Systems Target Architecture
ASAP	Automated Standard Application for Payments
BAS	Budget Automation System
BC	Bankcard Obligations
BFY	Budget Fiscal Year
BRM	Business Reference Model
BV	Bankcard Payments
CCA	Clinger-Cohen Act
CDX	Central Data Exchange
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFC	Cincinnati Finance Center
CFO	Chief Financial Officer
COE	Center of Excellence
CONOPS	Concept of Operations
COTS	Commercial Off-the-Shelf
CPARS	Combined Payroll Redistribution and Reporting System
CPS	Contract Payment System
CPU	Central Processing Unit
CSC	Coastal Services Center
DA	ASAP payment
DBMS	Data Base Management System
DCN	Document Control Number
DD	Direct Disbursement
DFAS	Defense Finance and Accounting Service
DOJ	Department of Justice
EAI	Enterprise Application Integration
EASY	Electronic Approval System
EPA	Environmental Protection Agency
EPAYS	EPA Payroll and Personnel System
ETL	Extract, Transform, and Load

ETS	Electronic Travel Service
FAS	Fixed Asset Subsystem
FASAB	Federal Accounting Standards Advisory Board
FCO	Funds Control Officer
FDW	Financial Data Warehouse
FEA	Federal Enterprise Architecture
FFMIA	Federal Financial Management Improvement Act
FFS	Federal Financial System
FinRS	Financial Replacement System
FIPS PUB	Federal Information Processing Standards Publication
FISMA	Federal Information Security Management Act
FM LoB	Financial Management Line of Business
FOIA	Freedom of Information Act
FPS	Fellowship Payment System
FSMP	Financial System Modernization Project
FSSC	Federal Supply Schedule
FTE	Full-Time Employee
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GAO	Government Accountability Office
GICS	Grants Information and Control System
GISRA	Government Information Security Reform Act
GL	General Ledger
GMRA	Government Management Reform Act
GOTS	Government Off-the-Shelf
GP	Grant Payment
GPAS	Grant Payment Allocation System
GPEA	Government Paperwork Elimination Act
GPRA	Government Performance and Results Act
GSA	General Services Administration
GUI	Graphical User Interface
GWAC	Government-Wide Acquisition Contracts
HR	Human Resources
I/O	Input/Output
IAG	Inter-Agency Agreements
ICMS	Integrated Contract Management System
IDOTS	Inter-Agency Document Online Tracking System
IFMS	Integrated Financial Management System
IG	Inspector General
IGMS	Integrated Grants Management System
IPAC	Intra-Governmental Payment and Collection
IRM	Information Resources Management
IRMS	Integrated Resource Management System

ISO	Information Security Office
IT	Information Technology
ITGSS	Information Technology Governance Support System
ITMRA	Information Technology Management Reform Act
JFMIP	Joint Financial Management Improvement Program
LIPS	Laboratory Implementation Plan System
LVFC	Las Vegas Finance Center
MARS	Management Accounting and Reporting System
NAAQS	National Ambient Air Quality Standards
NIST	National Institute of Standards and Technology
NPM	National Program Manager
O&M	Operations and Maintenance
OAM	Office of Acquisition Management
OARM	Office of Administration and Resource Management
OCFO	Office of the Chief Financial Officer
ODS	Operational Data Store
OECA	Office of Enforcement and Compliance Assurance
OEI	Office of Environmental Information
OFM	Office of Financial Management
OMB	Office of Management and Budget
OMIS	ORD Management Information System
OPPIN	Office of Pesticides Program Information Network
ORBIT	OCFO Reporting and Business Intelligence Tool
ORD	Office of Research & Development
OSWER	Office of Solid Waste and Emergency Response
OTOP	Office of Technology Operations and Planning
P&L	Profit and Loss
PAO	Property Accountable Officers
PCO	Property Custodial Officers
PERS	Performance and Environmental Results System
PIV	Personal Identity Verification
PMA	President's Management Agenda
PMD	Property Management Database
PMO	Program Management Office
PO	Purchase Order
POI	Program Office Interface
PP&E	Property, Plant and Equipment
PPL	PeoplePlus
PPL	Payroll Personnel and Labor
PRA	Paperwork Reduction Act
PV	Payment Voucher
RAS	Reporting and Systems Analysis
RMS	Resource Management System

RPIO	Responsible Planning Implementation Officer
RQ	Bankcard Commitment
RTP	Research Triangle Park
SAP	Simplified Acquisition Purchase
SC	Security Category
SCORPIOS	Superfund Cost Recovery Package and Image On-Line System
SDLC	System Development Life Cycle
SFLO	Superfund Layoff
SGL	(U.S. Treasury) Standard General Ledger
SLATE	Strategic Lease and Asset Tracking Enterprise
SPEDI	Small Purchase Electronic Data Interchange System
SPITS	Small Purchase Information Tracking System
SPODE	Single Point of Data Entry
TACM	Change Management
TM	Travel Manger
TRM	Technical Reference Model
TSR	Telecommunications Service Request
TSSMS	Time Sharing Security Management System
WAN	Wide Area Network
WBS	Workload & Billing System
WCF	Working Capital Fund
WEBOS	Web-based Ordering System
WFMC	Washington Financial Management Center
WIS	Web Invoice System

Appendix H Terms and Definitions

Access Control	The process of limiting access to the resources of a system only to authorized programs, processes, or other systems (in a network). Synonymous with controlled access and limited access.
Accountability	The existence of a record that permits the identification of an individual who performed some specific activity so that responsibility for that activity can be established.
Acquisition Plan	A formal document showing how all hardware, software, and telecommunications capabilities, along with resources, are to be obtained during the life of the program.
Activity	A unit of work to be completed in order to achieve the objectives of a work breakdown structure.
Application	A computer program designed to help people perform a certain type of work, including specific functions, such as payroll, inventory control, accounting, and mission support. Depending on the work for which it was designed, an application can manipulate text, numbers, graphics, or a combination of these elements.
Application	A system providing a set of services to solve some specific user problem.
Architecture	The structure of a computer system, either a part or the entire system; can be hardware, software, or both.
Assessment	An estimate or determination of the significance, importance, or value of a particular element.
Audit	An independent examination of a work product or set of work products to assess compliance with specifications and standards; an assessment activity that verifies compliance with plans, policies, and procedures; a comparison of the reported performance, products, or status against actual performance; a comparison of the actual performance, products, or status against established criteria.
Audit Trail	In an accounting package, any program feature that automatically keeps a record of transactions to find the origin of specific figures that appear on reports. In computer systems, a step-by-step history of a transaction, especially a transaction with security sensitivity. Includes source documents, electronic logs, and records of accesses to restricted files.
Authentication	The act of verifying the identity of a user and the user's eligibility to access computerized information. Designed to protect against fraudulent activity.
Authorization	The granting of access rights to a user, program, or process.
Availability	The concept that users will be able to access data when needed.
Backup	Any duplicate of a primary resource function, such as a copy of a computer program or data file. This standby is used in case of loss or failure of the primary resource.
Baseline	A work product (such as software or documentation) that has been formally reviewed, approved, and delivered and can only be changed through formal change control procedures.
Bug	A flaw in a computer program that causes it to produce incorrect or inappropriate results.
Capability	A measure of the expected use of a system.
Certification	The comprehensive evaluation of the technical and non-technical security features of an AIS and other safeguards, made in support of the accreditation process that establishes the extent to which a particular design and implementation meet a specified set of security requirements.

Change Management	Judicious use of means to effect a change, or proposed change, on a product or service. Management of a revision to a program/project element that has already been completed and approved.
Commercial Off-The-Shelf	(COTS) See Off the shelf.
Component	General term for a part of a software system (hardware or software).
Concept of Operations	A formal document that describes the user's environment and process relative to a new or modified system; defines the users, if not already known. Called a CONOPS.
Confidentiality	Ensuring that transmitted or stored data are not read by unauthorized persons.
Cost Analysis	Presents the costs for design, development, installation, O&M, and consumables for the system to be developed.
COTS	See Off-the-shelf.
Data	Facts and information that can be communicated and manipulated.
Data Processing	The computerized preparation of documents and the flow of data contained in these documents through the major steps of recording, classifying, and summarizing.
Data Warehouse	A generic term for a system used to store, retrieve, and manage large amounts of data. A database, often remote, containing recent snapshots of corporate data that can be used for analysis without slowing down day-to-day operations of the production database.
Database	A collection of related information about a subject organized in a useful manner that provides a base or foundation for procedures, such as retrieving information, drawing conclusions, or making decisions. Any collection of information that serves these purposes qualifies as a database, even if the information is not stored on a computer.
Download	Process of transferring data from a central computer to a personal computer or workstation.
Environmental Controls	This subset of physical access controls prevents or mitigates damage to facilities and interruptions in service. Smoke detectors, fire alarms and extinguishers, and uninterruptible power supplies are some examples of environmental controls.
Field	A location in a record in which a particular type of data are stored. In a database, the smallest unit of data that can be named. A string of fields is a concatenated field or record.
File	A collection of records stored in computerized form.
Financial Management System	Financial information systems and the financial portions of mixed systems (systems that support both financial and non-financial functions) that are necessary to support financial management.
Firewall	Firewalls are hardware and software components that protect one set of system resources (e.g., computers, networks) from attack by outside network users (e.g., Internet users) by blocking and checking all incoming network traffic. Firewalls permit authorized users to access and transmit privileged information and deny access to unauthorized users.
Hacker	A person who attempts to enter a system without authorization from a remote location.
Hardware	The physical components of IT, including the computers, peripheral devices such as printers, disks, and scanners, and cables, switches, and other elements of the telecommunications infrastructure.
Implementation Plan	A formal document that describes how the system will be installed and made operational.
Information	The meaning of data. Data are facts; they become information when they are seen in context and convey meaning to people.
Information Technology	The application of engineering solutions in order to develop computer systems that process data.
Input	Any information entered into a computer or the process of entering data into the computer.
Integrity	The concept that data, when viewed, will be in sound, unimpaired, or perfect condition.

Integrity	With respect to data, its accuracy, quality, validity, and safety from unauthorized use. This involves ensuring that transmitted or stored data are not altered by unauthorized persons in a way that is not detectable by authorized users.
Interface	A connection between two devices, applications, or networks or a boundary across which two systems communicate. Interface may also refer to the portion of a program that interacts with the user.
Internet	When capitalized, the term "Internet" refers to the collection of networks and gateways that use the Transmission Control Protocol/Internet Protocol suite of protocols.
JFMIP	See Joint Financial Management Improvement Program.
Job	A set of data that completely defines a unit of work for a computer. A job usually includes programs, linkages, files, and instructions to the operating system.
Joint Financial Management Improvement Program	Now part of the Federal Financial System Branch of the Office of Federal Financial Management working in cooperation with other agencies to improve financial management practices in government. The Program promotes strategies and guides financial management improvement across government; reviews and coordinates central agencies activities and policy promulgations; and acts as catalyst and clearinghouse for sharing and disseminating information about good financial management practices. The objectives of the Program are to develop systems requirements, communicate and explain Federal and agency needs, provide agencies and vendors information to improve financial systems, ensure that products meet relevant system requirements, and simplify the procurement process.
Legacy System	A computer system, consisting of older applications and hardware, which was developed to solve a specific business problem. Many legacy systems do not conform to current standards, but are still in use because they solve the problem well and replacing them would be too expensive.
Life Cycle	All the steps or phases a program passes through during its system life; from concept development to disposition.
Mainframe	A multi-user computer designed to meet the computing needs of a large organization. The term came to be used generally to refer to the large central computers developed in the late 1950s and 1960s to meet the accounting and information management needs of large organizations.
Maintenance	Altering systems after they have been in use for a while. Maintenance programming may be performed to add features, correct errors that were not discovered during testing, or update key variables (such as the inflation rate) that change over time. Hardware maintenance may be performed to replace failed components or to upgrade the features or performance of the system.
Migration	A change from an older hardware platform, operating system, or software version to a newer one.
Network	A group of computers and associated devices that are connected by communications facilities. A network can involve permanent connections, such as cables, or temporary connections made through telephone or other communications links. A network can be as small as a local area network consisting of a few computers, printers, and other devices, or it can consist of many small and large computers distributed over a vast geographic area.
Off-the-Shelf	A readily available, product, unlike custom-specific products that are developed for a specific client. Usually refers to software products, but also used for hardware. There are two main categories of "of-the-shelf" products: Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) products.

On-line	A processing term that categorizes operations that are activated and ready for use. If a resource is on-line, it is capable of communicating with or being controlled by a computer. For example, an application is classified as on-line when users interact with the system as their information is being processed as opposed to batch processing.
Operating System	The software that controls the execution of other computer programs, schedules tasks, allocates storage, handles the interface to peripheral hardware, and presents a default interface to the user when no application program is running.
Output	Data/information produced by computer processing, such as graphic display on a terminal or hard copy.
Owner	Manager or director with responsibility for a computer resource, such as a data file or application program.
Parameter	A value that is given to a variable. Parameters provide a means of customizing programs.
Password	A confidential character string used to authenticate an identity or prevent unauthorized access.
Password	A protected/private character string used to authenticate an identity.
Performance Measures	A category of quality measures that address how well a system functions.
Peripheral	A hardware unit that is connected to and controlled by a computer, but external to the Central Processing Unit (CPU). These devices provide input, output, or storage capabilities when used in conjunction with a computer.
Personnel Controls	This type of control involves screening individuals prior to their authorization to access computer resources. Such screening should be commensurate with the risk and magnitude of the harm the individual could cause.
Policy	A governing rule-set that dictates the day-to-day operations of an organization. Policy is the highest level of documentation from which all else will be derived. The policy can be viewed as the strategic plan for how business will be conducted in an organization. See Advisory Policy, Baseline Policy, Guidelines, Informative Policy, Management's Statement of Policy, Procedures, Regulatory Policy, and Standards.
Procedure	The step-by-step method followed to ensure standards are met.
Procedures	Methodologies for performing certain tasks. Checklists or practices that form the lowest member of the documentation chain.
Process	The work effort that produces a product. This includes efforts of people and resources guided by policies, standards and procedures.
Processing	The execution of program instructions by the computer's central processing unit.
Profile	A set of rules that describes the nature and extent of access to available resources for a user or a group of users with similar duties, such as accounts payable clerks. (See standard profile and user profile.)
Program	The complete set of activities associated with all phases needed to complete a systems development or maintenance effort from start to finish (may include hardware, software, and other components); the collective name for this set of activities. Typically a project has its own funding, cost accounting, and delivery schedule.
Protocol	In data communications and networking, a standard that specifies the format of data as well as the rules to be followed when performing specific functions, such as establishing a connection and exchanging data.
Quality	The degree to which inherent characteristics fulfill requirements.
Record	A unit of related data fields. The group of data fields that can be accessed by a program and contains the complete set of information on a particular item.

Requirement	A formal statement of: (1) an attribute to be possess by the end product or system or a function to be performed by the product; (2) the performance standard for the attribute or function; (3) the measuring process to be used in verifying that the standard has been met (completion criteria).
Resource	Something that is needed to support computer operations, including hardware, software, data, telecommunications services, computer supplies such as paper stock and preprinted forms, and other resources such as people, office facilities, and non-computerized records.
Risk	An event, situation, or condition that has the potential to prevent the program from achieving its objectives within schedule and budget.
Risk assessment	The identification and analysis of possible risks in meeting the agency's objectives that forms a basis for managing the risks identified and implementing mitigating controls.
Security	The protection of computer facilities, computer systems, and data stored on computer systems or transmitted via computer networks from loss, misuse, or unauthorized access. Computer security, as defined by Appendix III of OMB Circular A-130, involves the use of management, personnel, operational, and technical controls to ensure that systems and applications operate effectively and provide confidentiality, integrity, and availability.
Server	A computer running administrative software that controls access to all or part of the network and its resources, such as disk drives or printers. A computer acting as a server makes resources available to computers acting as workstations on the network, e.g. web, file, or database servers.
Software	A computer program or programs, in contrast to the physical environment on which programs run (hardware).
Solicitation	Obtaining quotations, bids, offers, or proposals as appropriate.
Source code	Human-readable program statements written in a high-level or assembly language, as opposed to object code, which is derived from source code and designed to be machine-readable.
Stakeholders	Individuals and organizations that are actively involved in the program, or whose interests may be positively or negatively affected as a result of program execution or program completion.
Standards	Regarding information security, a compulsory document used throughout the organization to establish a baseline and create a uniform statement of use for technology.
Systems Development Life Cycle (SDLC)	A formal model of a hardware/software project that depicts the relationship among activities, products, reviews, approvals, and resources. Also, the period of time that begins when a system is conceived (system concept development) and ends when the system is no longer available for use (disposition).
Technical controls	See logical access control.
Telecommunications	A general term for the electronic transmission of information of any type, such as data, television pictures, sound, or facsimiles, over any medium, such as telephone lines, microwave relay, satellite link, or physical cable.
Threat	Any circumstance or event with the potential to cause harm to a system in the form of destruction, disclosure, modification of data, and/or denial of service.
Transaction	A discrete activity captured by a computer system, such as an entry of a customer order or an update of an inventory item. In financial systems, a transaction generally represents a business event that can be measured in money and entered in accounting records.

UNIX	A multitasking operating system originally designed for scientific purposes which has subsequently become a standard for midrange computer systems with the traditional terminal/host architecture. UNIX is also a major server operating system in the client/server environment.
User	Person or process accessing an AIS either by direct connections (e.g., via terminals), or indirect connections (e.g., prepare input data or receive output that is not reviewed for content or classification by a responsible individual).
User Interface	The software, input/output (I/O) devices, screens, procedures, and dialogue between the user of the system (people) and the system (or system component) itself.
Virus	A program that "infects" computer files, usually executable programs, by inserting a copy of itself into the file. These copies are usually executed when the "infected" file is loaded into memory, allowing the virus to infect other files. Unlike the computer worm, a virus requires human involvement (usually unwitting) to propagate.
Wide area network (WAN)	A group of computers and other devices dispersed over a wide geographical area that are connected by communications links.

Appendix I Reference Documents

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